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THE LONDON BIRD REPORT

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THE LONDON NATURAL HISTORY SOCIETY

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The Society also has representatives to the Essex, Kent and Surrey Naturalists Trusts.

THE LONDON BIRD REPORT

Number 25, 1960

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THE LONDON NATURAL HISTORY SOCIETY

Recording Arrangements

The Society's Area is bounded by a circle of 20 miles radius centred on St. Paul's Cathedral. The recorders, whose names and addresses are given below, welcome records from members and non-members. It materially assists the speedy entering of records if the following points are observed.

1. Please use the Society's recording sheets, which can be obtained from the Recorders. Submit records for North of the Thames, South of the Thames, and Inner London on separate sheets.
2. Please enter records by species in the Wetmore Order, which is used in this report. It is particularly requested that date order should not be used, as this inevitably slows down the work of transferring entries from the recording sheets to the card index which is used in the preparation of the report.
3. Please submit copies of field notes for all records of rare or unusual species.
4. Completed recording sheets should be submitted in August for the period January to July, in November for the period August to October, and in the first week of January for November and December.

Copies of the B.T.O. Field List of British Birds, which is in the Wetmore Order, may be obtained from Mrs. M. Waller, 77 Princes Avenue, W.3, price 6d. each, plus postage 2d. each; 12 copies, postage 5d.

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THE LONDON BIRD REPORT

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Introduction

MEMBERS will remember that the *London Bird Report* for 1959 began with a whole page devoted to changes in editorial and recording responsibility and in the membership of the Records Committee. Mention was also made of the creation of an Editorial Committee and the streamlining of records adjudication, interpretation and publication. The persons responsible for this report and the structure in which they work are set out above. It will be noted that their number has dropped from fourteen to ten and this has meant that the early stages have become at least easier to manage, especially in the vital preliminary of record review. Nevertheless it would be wrong not to acknowledge the debt that the section and the Society in general owes to the former members of the Records Committee who graciously stepped down in 1960. C. B. Ashby, L. Baker, S. Cramp and H. A. Craw have all given long service to the *London Bird Report*; without their efforts in the past, it is unlikely that its present-day standards could have been reached or maintained.

Comment on the British Birds Rarity Records Committee and its function is perhaps overdue. There is no doubt however that since its formation in 1959, the standards applied to the acceptance of rarity records have risen considerably and in common with other local ornithological societies, we welcome this national clearing house for rare birds. However, it should be noted that in 1960, there was a tendency for observers to think that the successful submission of full details of a rarity to the British Birds Committee was all that was needed to enshrine that bird locally. In most cases this turns out to be so, but in a few the presentation of only summarized details to the Records Committee can place its members in some difficulty of decision and definitely delays a final verdict. Members with a sporting turn of mind may note that in the case of the two disagreements over 1960 records between ourselves and the national committee, our record is played two, won one, lost one! This allusion is not frivolous as it may seem, because the British Birds Committee depends on local bodies for much

ancillary evidence and opinion and if one of the latter is without the fullest information on every record it may on one hand fail to support one of the team of observers in its area simply because of lack of contact or on the other be tempted to make rash statements based on incomplete evidence, which help no one. Correspondence between the Editor, Recorders and the Secretary of the British Birds Committee is a relatively new burden, which, if complicated by the absence of any relevant detail can seriously delay preparation of both local and national reports.

During 1960, the Research Sub-Committee continued to sponsor the enquiries in the bird life of rubbish tips and dumps and the avian population of the Lea Valley sewage farms. A. Gibbs and T. W. Gladwin are now in process of writing up the information received. Publication of the findings will be made in the *London Bird Report* for 1961. The special investigation into Sand Martin colonies undertaken by B. S. Nau was successfully completed and a paper summarizing the results appears on p. 69. In addition an enquiry in the breeding season distribution of the Tree Sparrow was organized by B. L. Sage for 1961 and members of the section were invited to take part in all the national surveys organized by the British Trust for Ornithology for that year. The main research effort of the section was, however, the London Migration Watch, a unique attempt to sample the many diurnal movements that characterize the autumn in south-east England. A narrative account of the watch, written by the organizers, A. Gibbs and D. I. M. Wallace, appears on p. 61.

Apart from the two mentioned above, one other paper follows the systematic list. B. S. Meadows contributes a historical summary of the Lea Valley gull roosts; it begins on p. 56 and provides useful information on a group of birds too often neglected. B. S. Milne is the author of the note on the activities of Beddington Ringing Station in 1960; the recovery of a Swift in the Congo was the outstanding success of the year and it is noted on p. 82. Mention of other interesting recoveries are included under species in the systematic list. Three book reviews appear on p. 83.

The Year

AFTER a comparatively quiet year in 1959, back came the rarities in 1960. White Stork, Ferruginous Duck, Kentish Plover, Pectoral Sandpiper, Roseate Tern, Short-toed Lark, Bearded Tit, Aquatic Warbler, Yellow-browed Warbler, Woodchat Shrike and Little Bunting all inhabit the systematic list; their actual occurrences in the London Area marked 1960 as a vintage year. The records of Short-toed Lark and Bearded Tits are the first for the area this century, those of White Stork, Roseate Tern and Yellow-browed Warbler only the second and that of Little Bunting the third. Altogether no less than 204 species were seen in the London Area during the year. This number constitutes an all time record beating the previous highest total (in 1958) by three, a relatively wide margin. It is

interesting to compare the total number of species recorded with the number of first occurrences since 1900 in the last six years:

	1955	1956	1957	1958	1959	1960
Total no. of species recorded annually	190	198	194	201	195	204
No. of species seen for the first time since 1900	4	3	2	1	1	2

It seems clear that while the mesh of the observers' net becomes finer and captures more in total, it is getting somewhat harder to add new species to the list of London birds. Nevertheless it is pleasing to think that not content with publishing in book form a clear record of their previous efforts and investigations up to 1954, London bird-watchers have followed this by adding another thirteen species to the total of 245 noted between 1900 and 1954. In an almost completely land-locked area, this is no mean effort.

That the same observers can also take part in a sustained and serious study of a single phenomenon is shown by the enthusiastic support given to the London Migration Watch and the other national and local enquiries undertaken during 1960. After taking part in the autumn migration watch, many observers stated how much excitement they had had and several freely admitted that, by rising early, they learnt much more about their local avifauna too! Such is the reward of the amateur bird-watcher who does not spend all his time away from home.

JANUARY TO MID-MARCH

Up to 28 Ruffs wintered at Perry Oaks S.F. for the seventh year in succession. It is remarkable how little the number of individuals in this flock has varied over the last few years; perhaps some individuals have spent several winters at the sewage farm, but where do these birds nest? The series of mild winters is beginning to affect the avian population at that season. Short-eared Owls were scarce in comparison to 1959, but a Blackcap was seen in January and Chiffchaffs were reported from four localities in the first two months. Woodlarks were recorded wandering at this time. However, colder weather in mid-January did bring in many birds to unusual surroundings, notably Fieldfares, Redwings, Bramblings and a Little Gull to Inner London and a Ferruginous Duck to Barn Elms. On Jan. 24th, a flock of 65 Smew at the latter reservoir was the largest of the year, but perhaps the most remarkable occurrence of January was noted on the 27th, when eleven White-fronted Geese actually flew down to join captive wildfowl in Regent's Park for a few minutes.

February was made a month of great interest, in contrast to 1959, by an exceptional finch influx. This was noted by the end of the second week in central London parks, with Linnets the commonest species involved, while elsewhere there were records of Mealy Redpoll, Twite and Snow Bunting. Numbers of wintering Golden Plovers were smaller than usual and not all the localities normally visited produced records, although a new winter flock was discovered at Rye Hill, Essex.

Although the position is confused by the small winter population, it is

probable that several migrant Chiffchaffs appeared around London in early March. Diurnal migration was soon obvious, with species as different as Cormorant and Siskin being seen over Inner London on the 5th. Later on the return of Chaffinches and Meadow Pipits was well watched, while more Chiffchaffs had come in by Mar. 12th, with parties of four at Kempton Park Res. and Poyle G.P. on that day.

MID-MARCH TO MAY

Late March produced records of both white-winged gulls, presumably passage migrants and surely connected with the evacuation of other gulls from the London Area. On Mar. 20th, a Whinchat surprised observers at Brent Res. On the 26th a Sedge Warbler, the earliest on record, was found at Ruxley G.P. and several Wheatears were reported. About these dates Hooded Crows were unusually prominent.

During the first ten days of April there were two records of waders and one of a tern that deserve special mention. A Kentish Plover at Perry Oaks S.F. on the 3rd matched the 1959 occurrence and a Wood Sandpiper was seen at Barn Elms Res. on the 9th. Full details were supplied to support this exceptionally early record. On the 10th the earliest Black Tern of this century was at Staines Res. Early April also produced an interesting fall of Wheatears on the North Downs, the timing of which suggested the birds had not paused first on the south coast. Little Gulls were twice seen at Staines in April and in May were recorded almost daily up to the fourth week. A Little Bunting was closely observed at Hilfield Park Res. on Apr. 20th at the tail end of the fringilline emigration marked in late March and early April. Once again there was a clearly marked passage of Scoters in the latter month and early May.

From May 2nd to 5th, there was an interesting series of migrant falls into Inner London with a cock Pied Flycatcher the most exciting bird: the movement coincided with coastal passage. On the 6th there was still one Jack Snipe in the area and on the 8th the wintering Long-tailed Duck was still present at Hilfield Park Res., but only three days later the spring movements of Black and "comic" Terns reached a peak. This was lower than in 1959 but associated with the main movement were records on the 12th of Little and Roseate Terns. Ten days later the passage of high Arctic waders became prominent; Turnstones were noted at several localities and seven Sanderling were seen at Girling Res. on the 22nd. Between these two periods of lari-limicoline passage, there was an interesting movement of passerines. Records of Cuckoo and Sedge Warbler in one acre of cover in Regent's Park on the 13th showing that something extraordinary had happened. Support for this was produced by one "pointer", a Woodchat Shrike at Addington on the same day. May 13th was a Friday! There were three May records of Little Stints.

JUNE AND JULY

As in 1959, large numbers of Ringed Plovers at Perry Oaks S.F. were again the final feature of the spring passage but the most unusual record was the first of two new birds for the London Area. From June 8th to 16th,

a Short-toed Lark frequented Staines Moor. The week-end of June 11th and 12th saw the passing of its first major milestone by Beddington Ringing Station: on those days the number of birds ringed there since 1956 passed 10,000.

The outstanding event of the breeding season in Inner London was the second successful nesting on record of the Grey Wagtail. A pair reared two young from the gutter of a brewery in Whitechapel. However the metropolis appeared to lose as breeding species both Stock Dove and Jackdaw and outside the built-up areas other breeding birds notably Wood Warbler showed further declines in population, while no Stonechats were recorded in summer at all. There was, however, a clear increase in the numbers of Black Redstarts and Little Ringed Plovers. Both Red-backed Shrikes and Corn Buntings were unusually widespread and there was some evidence of a change in the breeding ecology of the Reed Bunting. Of non-breeding birds that summered in the London Area, the three or four Shags that fished the reservoirs at Staines in the summer were the first to be recorded in that season since 1937. In 1959 a Fieldfare summered at Beddington S.F.; in 1960 a Redwing did so.

By mid-July, both nocturnal and diurnal migrants had begun to move. On July 23rd Whinchat, Willow Warbler and Chiffchaff were seen in Inner London and six days later, the first of three Pectoral Sandpipers appeared at Perry Oaks S.F. On July 31st the first sizeable nocturnal fall of the autumn occurred in Regent's Park, the species involved including Garden and Wood Warbler. Also on this day a pair of Shelducks at Swanscombe had four juveniles with them.

AUGUST TO MID-OCTOBER

257 Swifts flew south over Primrose Hill in the evening of Aug. 2nd. Another bird that flew over Inner London was a Shelduck on Aug. 11th; in contrast to the Swifts, it chose to do so in driving rain and was clearly lost. By mid-August migrants from the continent were coming into the London Area; an Aquatic Warbler was at Hilfield Park Res. on the 14th and 15th. The first Arctic Skua for three years was seen on the 14th flying N.E. over Perry Oaks S.F. There were two later records of this species. Another Pectoral Sandpiper was at London's most famous sewage farm on Aug. 21st, but shortly afterwards the passage of European and Asiatic Waders was to swamp the suitable habitats near London. Simultaneous with larger numbers than usual of Black and "comic" terns from Aug. 27th to 30th, Curlew Sandpipers began to pass in large numbers with *c.* 30 at Swanscombe on the 28th, the first large flock to be seen. Thereafter there were many records of this species with further peaks on Sept. 4th and 28th; on the latter date no fewer than 36 were present at the Brent Res. Clearly travelling with them were Ruffs, 26 being seen at the flooded Romford S.F. on Sept. 3rd. A probable participant of the same movement was a Grey Phalarope, that was present at Fetcham Ponds from the 3rd to the 6th. A third Pectoral Sandpiper was at Perry Oaks S.F. at this time. Passerine migration was also marked in the third week of August; a comparatively spectacular fall into Regent's Park overnight on the 25th/26th included

Redstarts and Lesser Whitethroats. There is growing evidence to suggest that this time of the year sees the maximum nocturnal movement over London.*

Throughout September, waders continued to dominate the London scene with Little Stints the most prominent of unusual species. There were 42 at Swanscombe Marsh on the 18th and a second widespread peak was recorded on the 28th, clearly associated with the movements of Curlew Sandpipers noted above. By this time hirundine evacuation was growing in pace and volume and Tree Pipits were among the first migrants seen in the London Migration Watch. However, the most exciting record of the autumn was noted not at a sewage farm nor in the sky nor in any natural habitat, but in a garden at Reigate. On Sept. 28th one observer returned home in the afternoon to find her garden full of migrant passerines. Chief among them was London's second Yellow-browed Warbler!

Although there was little evidence of a general tit irruption in 1960, a Marsh Tit was seen in Inner London in September during which month many observers began to note unusual numbers of Long-tailed Tits. This species became even more prominent through October and into November; its movements are summarized in the systematic list. Early October was remarkable also for several records of late Swifts, a national feature of 1960.

MID-OCTOBER TO DECEMBER

Another widespread irruption into Southern England occurred in mid-October; for the second year running Bearded Tits spread west from East Anglia. Several parties of this species arrived in the London Area and small flocks settled down at the Racecourse Reservoir at Walthamstow and at Swanscombe Marsh until early in 1961. Seldom are the first records of a species concerned with so many individuals as were reported in this case. Oct. 15th and 16th saw the first major peak in diurnal movements. A Razorbill flew up the Thames on Oct. 18th; in contrast to 1959, it was the only auk of the year. At Romford S.F. in October, there were several rather late records of Wood Sandpipers, but even more surprising was a Reed Warbler injured but alive at Spout Wood on the 29th. Three records of Twite were obtained in late autumn but again the most interesting series of records are concerned with a limicoline species. Dunlins established a high-tide roost at Swanscombe for the last three months of the year, the largest number recorded being *c.* 2500 on Nov. 20th. Eight days later there was a second Marsh Tit in Inner London, but the second peak in diurnal migration had occurred earlier on the 5th and 6th. Passage although continuing into December was much reduced by the end of November.

December produced another important record, that of a White Stork in the Lea Valley. No escapes have been traced for that period and the bird was noted as wild. Only up to twelve Ruffs were at Perry Oaks S.F. in this month; perhaps the beginning of another mild winter had allowed

* A similar peak movement occurred in the late August 1961, when *moon watches* from the window of an inner London flat on the night of the 27th and 28th produced a total of 40 birds in three hours.

some of the regular birds to spend that season even further north. The year ended with Chiffchaffs in three localities: four at Perry Oaks S.F. formed the largest group and were soon to be joined by the Greenish Warbler, of which the identification was confirmed early in 1961 and which will no doubt take pride of place in the next *London Bird Report*.

ACKNOWLEDGEMENTS

This report owes its existence to the members of the Ornithological Section, who by their work in the field create the records summarized in it. The Records Committee wishes to thank all who have contributed observations and also to welcome new members to the Society. The Editor gratefully acknowledges much help from the members of the Editorial Committee and the Records Committee. It should be noted that Messrs. R. C. Homes, B. L. Sage and P. R. Colston were responsible for the compilation of the Systematic List as far as Sandwich Tern. The Recorders as usual gave unstinted support. Help was also given by the following: L. Baker, Eric Hosking who kindly loaned the photograph of Short-toed Larks, A. C. Parker likewise with that of the Sand Martins, E. R. Parrinder and Mrs. L. M. P. Small. The Editor thanks them all. The Recorders wish to thank Messrs. B. E. Newport and J. G. Sanders for help in entering records.

Assistance in the exchange of records and information was given freely by the Editors of *British Birds*, G. A. Pyman (Hon. Secretary to the *B.B.* Rarity Records Committee), the officers of the British Trust for Ornithology, the Essex Bird Watching and Preservation Society, the Surrey Bird Club, the Zoological Society of London and the Committee on Bird Sanctuaries in the Royal Parks. Members also have to acknowledge kindnesses from the Metropolitan Water Board, the London County Council and the Croydon Corporation.

The cover drawing of a Bearded Tit was done by Peter Colston.

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Birds of the London Area, 1960

A REPORT OF THE BIRD LIFE WITHIN TWENTY MILES OF ST. PAUL'S CATHEDRAL

THIS report follows the British Ornithologists' Union's "Check-List of the Birds of Great Britain and Ireland" (1952) based on the Wetmore classification, and the numbers preceding each species refer to that List where the full scientific name will be found. The vernacular names are those adopted by the Editors of *British Birds* magazine as announced in January, 1953 (*B.B.*, 46: 1).

All records are for 1959 except where otherwise stated. The initials following each record refer to the observer(s) responsible for it, whose name(s) may be obtained by reference to the list of contributors on page 8.

The six counties within the circle of twenty miles radius are indicated by their initials, *viz.*:—B=Bucks; E=Essex; H=Herts; K=Kent; M=Middlesex; S=Surrey. Several of the Lea Valley reservoirs are partly in Middlesex, but all records referring to them are published under Essex, following the policy adopted by W. E. Glegg in his histories of the birds of Essex (1929) and Middlesex (1935). The following abbreviations are also used:—*B.B.*=*British Birds* magazine; *E.B.R.*=*Essex Bird Report*; *L.B.R.*=*London Bird Report*; G.P.=gravel pit; Res.=reservoir; S.F.=sewage farm; N., E., S., and W., are used for the cardinal points of the compass, but are intended only to indicate the general direction of flight; mo=many observers.

An open map of the London Area will be found useful for a full appreciation of many of the records. As the history of some of the species is intended to be continuous, reference to the Society's book *The Birds of the London Area since 1900* and to the systematic list of previous issues of the *L.B.R.* is recommended.

Records which have been published in the *Essex Bird Report*, 1960, are indicated by an asterisk which is placed by the particular record or, where all records of a species have been published, by the county initial "E".

1 Black-throated Diver

- E* King George V Res., two on Jan. 15th (JF):
M Queen Mary Res., one from Jan. 17th to Feb. 17th (JFC, PRC, REE, BAM, CMV).

2 Great Northern Diver

- H West Hyde G.P., one still in almost complete summer plumage from Nov. 9th to Nov. 20th (REE, JBC, DMP, BPP, MC).

- S Barn Elms Res., one from Dec. 3rd to the end of the year; a second bird was present on Dec. 4th and 5th (MDK, BEN, REE, PRC *et al.*).

4 Red-throated Diver

- E* King George V Res., an oiled bird found dead on Mar. 26th (RFP).
Walthamstow Res., one on Feb. 13th (JF).
M Queen Mary Res., one picked up dead on Jan. 17th and one from Jan. 17th to Feb. 21st (PRC, CMV, REE).

Diver (species not identified)

- E King George V and Girling Res., one flying S. on Jan. 16th (GCG).

5 Great Crested Grebe

The largest numbers reported were from Queen Mary Res., Middx., with a maxima of *c.* 650 on Jan. 10th and *c.* 630 on Nov. 13th (SG, BEC, PRC).

- M Inner London: Hyde Park and Kensington Gardens, up to two birds present from Oct. 18th to Nov. 9th (mo).

Minimum numbers on all the wildfowl count waters as in the table given in *L.B.R.*, 24 : 12, were as follows:—

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1960-61	917	?	1179	?	807	276	214

It will be seen that numbers appeared to be higher than in any previous year in the series in September and November, but fell off much more rapidly than normal after the count in January, 1961. Whereas Queen Mary Reservoir accounted in September for only 11.7% of the total, in November it had about 51% and in January, 1961, about 69%. By mid-February there were only six birds left there.

6 Red-necked Grebe

- M Staines and King George VI Res., one from Feb. 14th to Apr. 8th attained full summer plumage during its stay (PRC, REE, CMV, *et al.*).
Inner London: Kensington Gardens and Hyde Park, one on Oct. 6th and 11th (CHFP, AP, CHH).

7 Slavonian Grebe

- E* Girling and King George V Res., one on Oct. 15th and 16th (JCE, JF).
M Staines Res., single birds on Feb. 19th (JBC) and from Nov. 5th to Dec. 13th (SG, JRP, DMP, EAB, JFC).
S Barn Elms Res., one from Dec. 26th to 31st (mo).

8 Black-necked Grebe

- E* Girling Res., single birds recorded on Feb. 9th and on four dates between Aug. 28th and Oct. 6th (JCE, BSMs, JF). King George V Res., one on Mar. 16th (FR). Nazeing G.P., one from Sept. 18th to 24th and on Oct. 15th (TWG, BSMs, BSN).

- H Broxbourne G.P., single birds on Apr. 2nd and Sept. 17th (TWG). Hilfield Park Res., two in summer plumage on Apr. 9th (EHW). Rye Meads S.F., single birds on Feb. 27th and Sept. 4th (TWG, BSMs).
- M Brent Res., one on Aug. 12th (PLB). Queen Mary Res., single birds on July 16th, Sept. 6th and Oct. 15th (JFC, BEC, SG). Staines Reservoirs, single birds recorded on Jan. 3rd to 10th, May 7th and 8th (DMP, SG, AQ); present during the autumn from Aug. 7th to Nov. 7th, maximum 12 on Sept. 25th at King George VI Res. (LAB, DGH, SG, *et al.*).
- S Barn Elms Res., one on Aug. 27th (PJS). Island Barn Res., one on Jan. 21st (WRI) and two in summer plumage on June 5th (DP). Molesey Res., two on Oct. 15th (SG).

9 Little Grebe

The largest gathering recorded was at Ruxley G.P., Kent, where there was *c.* 35 on Jan. 13th (DS).

Inner London records are given in full.

- M Kensington Gardens, one on Apr. 7th and 8th (CHFP, CHH). St. James's Park, one on Jan. 15th (ABMM). Regent's Park, two on Apr. 15th and one from Nov. 14th to 21st (DIMW, SMG).

28 Cormorant

No change in status. Inner London records are given in full.

- M Charing Cross Station, one in flight on Jan. 19th (MC). Regent's Park, one on Mar. 5th, two on the 31st and one on Apr. 15th, all flying W. (DIMW). Westminster, three swimming up river with the tide on Feb. 8th (ABMM).

29 Shag

Recorded in every month following an influx during late January and early February. A few birds which summered were generally immature.

- E* King George V Res., one on Feb. 22nd and 23rd was found dead on Mar. 5th (RFP, RB, BSMs); single birds recorded on four dates between Aug. 28th and Sept. 24th (RFP, BSMs, FR). Walthamstow Res., one on Feb. 23rd, Mar. 12th and May 1st was probably the same bird as that found dead at Banbury Res. later (RFP, JF): one on Oct. 8th and Nov. 18th (RWG, JF).
- H Dobb's Weir, one or two birds from Mar. 3rd to Apr. 24th (BSMs, JHB, TWG, BSN). Rye Meads S.F., two from Aug. 27th to Sept. 2nd (BSMs).
- M Brent Res., one on Jan. 24th and Feb. 21st (PLB, LAB, MDK). Queen Mary Res., two on Oct. 30th (JRP). Staines and King George VI Reservoirs, eight immatures on Feb. 6th, two of which were subsequently picked up dead on Mar. 6th; thereafter three to four birds were continuously present until Oct. 30th (one found dead on Oct. 23rd) and one or two birds remained until Dec. 3rd (MO).

- S Kew Bridge, one picked up on Mar. 23rd after landing on the road in fog was later released in Kew Gardens where it stayed until Mar. 30th (*Royal Parks Report*).

30 Heron

The number of occupied nests at the five previously known heronries was 182, showing a decrease of 6 from the figure for 1959. A new heronry was found near Watford.

- E Little Parndon, five nests (FHJ). Walthamstow Res., 62 nests (AG).
 H Whippendell Woods, near Watford, one pair bred successfully (JDM).
 M Kempton Park Res., 91 nests (EMG).
 S Gratton Park, 17 nests (HB). Richmond Park, seven nests (EDB).
 It should be noted that at Richmond Park there was no evidence of breeding success and the future of this heronry is open to doubt.

38 Bittern

- E* Fishers Green G.P., one was found dead beneath overhead pylon cables on Feb. 14th (DK, per JCE).

40 White Stork

- H Cheshunt, one from Dec. 3rd to 17th (OCJB, BSN, JW, CW, *et al.*); thereafter the same bird was seen at Wormley on Dec. 26th and Jan. 15th, 1961 (RB, CW). This bird was a rather wild and unapproachable individual. Subsequent enquiries failed to produce evidence that this bird had been lost by any collection, although the possibility cannot be ruled out. See *B.B.*, 54: 180.

DUCKS

As in the 1959 report a summary is included under the principal species of the results of the wildfowl counts in the winter of 1960-61. Comparison should be made with the review of the first ten years in *L.B.R.*, 22: 36-49 and the summaries in *L.B.R.*, 24: 14-21.

Counts of all ducks on the following dates would be welcomed from any locality
 Oct. 15th, Nov. 12th, Dec. 17th, 1961; Jan. 14th, Feb. 18th, Mar. 18th, 1962.

Mandarin

- M King George VI Res., a duck on Oct. 16th (PRC, BEN, SG).
 S Bookham, a pair on a private pond on Feb. 6th were often there according to the owner (MJC, JGS). R. Mole, two drakes and a duck between Cobham and Esher on Apr. 9th (GL).
All records of this species would be welcome.

45 Mallard

The rising trend in winter numbers which has been continuous since at least 1952-53, though declining recently in rate, was at last halted in the winter of 1960-61, when the average of the only two counts conforming with the standard laid

down in Homes, *L.B.R.*, 22: 36-49, was 5513, a fall of under 4% from the previous highest average in 1959-60 and still 48% above the lowest average in 1952-53. The highest monthly count was 5718 compared with the previous peak of 6344. It is as well to remember that there are very many Mallard in the Area that are not included in the monthly counts at the principal localities and there are records of over a thousand at the few other waters visited on the same dates.

A juvenile Mallard ringed at Peakirk, near Peterborough, in September 1959 turned up in the following December in the kitchen of one of the London hotels !

46 Teal

In this species also the winter population was low. The two valid counts for 1960-61 averaged only 411, the lowest since 1953-54.

Selected records only are given below :—

- E Rainham Marsh, two on June 14th (swLs).
- H At Hilfield Park Res., which is not included in the above summary, there were up to 120 (on Jan. 3rd) in the winter of 1959-60. In the latter part of the year numbers reached 70 on Oct. 16th (BLS).
- S Pairs were seen at Walton Res. and Silvermere on Apr. 19th (MJC) and on July 23rd at Hershams S.F. (GHG) where there were five on Aug. 28th (EJC, WRI).

47 Garganey

- E* Fishers Green G.P., a drake on May 15th (BSMs). King George V Res., two on Mar. 6th (JF). Rainham Marsh, a pair from May 2nd to 6th (JHB), a duck on June 28th (swLs) and up to 12 in August (JHB, PJS). Walthamstow Res., a pair from Mar. 26th (JF) and two pairs from Apr. 2nd (mo) until May 18th (RFS); a drake on Sept. 8th (JF). Wanstead Basin, a drake on Mar. 20th (FRT).
 - H Broxbourne S.F., a pair on Mar. 27th (JW), a duck on May 15th (BSMs) and a drake on 16th and 25th (BSN); seen on four dates from Aug. 3rd to 21st, max. three (BSN). Rye Meads S.F., a duck on Apr. 23rd (TWG, BSN) and one on Sept. 10th and 18th (JHB, TWG).
 - B Colnbrook G.P., two ducks on Mar. 20th (PLB).
 - M Brent Res., a drake on May 28th (LAB). Charlton G.P., a pair from Mar. 24th to 27th (JFC, MC, SG). Queen Mary Res., a drake on May 6th (BEC) and one on July 31st (JHB). King George VI Res., a drake on Mar. 15th (TRS), a pair on Apr. 3rd (LAB), one on Aug. 1st and 3rd and two on Sept. 18th (LAB, PLB, MDK, AGV).
 - S Addlestone, a drake at Ham Moor G.P. on May 8th and a pair on June 4th (GHG). Barn Elms, a drake on July 28th (MDK). Hershams, seven on Aug. 27th (GHG). Silvermere, a pair on Apr. 24th (GHG).
- Although Garganey were recorded at seven localities in May and two in June there was no evidence of breeding. Regular observation at suitable localities*

in June might well show that breeding is more frequent than is apparent from the records.

49 Gadwall

- E* Fishers Green G.P., a duck on Apr. 10th (JCE). Girling Res., a pair from May 1st to 8th (JF, RFP). King George V Res., a pair on Apr. 2nd (BSMs), May 2nd and 3rd (JCE, RFP). Walthamstow Res., a duck from June 26th to July 27th (JF) and a pair on Aug. 7th (RWG).
- H Frogmore, three on Nov. 30th (EHW). Hilfield Park Res., a pair on Jan. 10th and 16th and a drake on Nov. 5th and 13th (BLS).
- M Brent Res., up to 6 from Aug. 15th to Oct. 30th (mo). King George VI and Staines Res., a drake from Nov. 26th to Dec. 4th (JFC, DMP, CMV). Queen Mary Res., two drakes from Feb. 21st to Apr. 30th, three on May 7th and a drake on the 23rd; two or three from Oct. 15th to Nov. 13th and a drake on Dec. 11th (mo). Perry Oaks S.F., a duck on Sept. 7th (NHP).
- S Barn Elms Res., the maximum count was 14 on Feb. 7th, Mar. 5th and Nov. 13th; three pairs summered (mo). Walton Res., a drake on May 21st (sg) and a duck on Nov. 12th (AJC). River Thames, between Putney and Hammersmith, four on Dec. 24th (PJS).

50 Wigeon

As in previous years numbers in the early part of the winter of 1960-61 were low but there was a marked recovery in February, 1961, with a total of 540 on the 12th (interpolation 2%). These were mainly at Staines (about 350) and King George VI Res. (125).

Records are given for Hilfield Park Res. and May-August only.

- H Hilfield Park Res., figures not included in above summary, max. 75 on Feb. 6th (BLS).
- M Staines Res., two pairs on May 1st (BAM) and a pair on 22nd (PRC).
- S Barn Elms Res., a pair on June 17th and 18th (RWG, HLR).

52 Pintail

No records of more than one bird.

- E* Rainham Marsh, one from July 10th to 30th and on Aug. 21st (JHB).
- H Broxbourne G.P., a drake on Mar. 19th (NR). Hilfield Park Res., a duck on Sept. 8th (EHW).
- M Brent Res., a drake on Jan. 17th (RWG) and a duck on Sept. 6th (LAB). Perry Oaks S.F., a drake on Feb. 27th and 28th, probably the same bird at Staines Res. on the 28th (BEC, JFC, *et al.*).
- S Barn Elms Res., a drake from Jan. 17th to 31st (mo) and a duck on Feb. 17th (NHP). Island Barn Res., a drake on Jan. 30th (DP). Molesey, a drake on Feb. 16th (BEC).

53 Shoveler

There were no unusual numbers of Shoveler in the early part of the winter of 1960-61 but more than usual stayed on and

there were 137 on Jan. 15th and 82 on Feb. 12th, 1961.

Breeding season and a few other records are given.

- E Rainham Marsh, a pair in May and June apparently did not breed (JHB). From seven to eight seen at Walthamstow Res. in the latter part of July (JF, RWG).
- H Rye Meads S.F., one pair bred, young seen (BSN).
- M King George VI and Staines Res., two pairs on May 1st (GCG, BAM), one pair staying into June (LAB).

54 Red-crested Pochard

It has recently been shown fairly conclusively that a few, almost certainly of Continental origin, are quite regular visitors in autumn to the reservoirs of outer Essex, but as there is evidence of at least thirty full-winged birds in the London parks the real significance of the following records is doubtful.

- H Hilfield Park Res., a duck from Feb. 6th to 14th (BLS).
- M Queen Mary Res., a duck on Oct. 8th, 15th and 16th (LAB, SG, DGH, DMP).

55 Scaup

- E* Girling Res., a duck from Oct. 3rd to 12th (RFP). Nazeing G.P., another or the same duck (as above) from Oct. 23rd to the end of the year (BSN).
- H Aldenham Res., a duck on Mar. 18th (EHW). Frogmore, a pair on Nov. 20th (BLS). Hilfield Park Res., a drake on Feb. 7th (EHW) and a duck on 29th (LAB), a duck on July 29th, three on Oct. 30th and one on Nov. 5th (BLS); four immature birds on a nearby pond on Jan. 5th (EHW). Rye Meads S.F., one to two from Oct. 22nd to Nov. 12th (mo) and a duck on Dec. 17th (NR).
- M Brent Res., two drakes on Feb. 4th (RP), a drake and a duck on the 17th (EHW), a duck on Apr. 6th (LAB, PLB) and a drake on Sept. 21st and 22nd (MDK, LAB, AGV). Queen Mary Res., up to four from Jan. 17th to Mar. 30th. Staines and King George VI Res., present from Oct. 16th to the end of the year, probably three birds involved (mo).
- K Ruxley G.P., a duck on Oct. 16th (FJH).
- S Barn Elms Res., one on Jan. 11th (RFG), a drake on *May* 28th-29th (LAB, SK, PJS); present from Nov. 5th to the end of the year, two or three birds involved.

56 Tufted Duck

As with the Mallard, the other main constituent of the winter duck population, the numbers of Tufted Duck in the winter of 1960-61 reflected the very mild conditions and showed a marked drop. Complete counts are not available for December or February but the average of the November and January counts was 2357, compared with the range of averages for the last ten years from 1988 to 3979, the highest figure being for the winter 1959-60.



PLATE 1. A PAIR OF SHORT-TOED LARKS
(photographed by *Eric Hosking*)

- E* Cheshunt G.P., one pair bred (BSMs). Fishers Green G.P., one pair bred (BSMs). Nazeing G.P., three pairs bred (BSMs). Walthamstow Res., nine pairs bred (JF).
- H Broxbourne G.P., one pair bred (BSMs). Hilfield Park Res., two pairs on June 26th (LAB). Hyde Crete G.P., five pairs bred (BPP). Rye Meads S.F., six pairs nested of which three were successful (TWG).
- B Colnbrook G.P., one pair bred (PLB).
- M Brent Res., two or three pairs in summer but no proof of breeding (LAB). Chiswick House, three pairs seen with young (MW). Gunnersbury, two pairs bred on Potomac Pond (MW). Hurlingham Lake, four pairs bred (REFP). Clissold Park lake and Stoke Newington Res. filter beds, 12 pairs summered of which seven bred successfully (JHB). Queen Mary Res., two pairs bred (SG). Inner London: Hyde Park, five young seen on Aug. 26th (RFS). St. James's Park, a maximum breeding population of 30 pairs; 47 young fledged successfully (EHG). Regent's Park, from at least six broods, 24 fledged successfully (DIMW, EHW).
- K Ruxley G.P., six drakes and five ducks on May 12th (WIB). Sutton at Hone G.P., five pairs with four broods on July 9th (RVW).
- M/S **There was again an interesting build-up of numbers in mid-summer: 60 drakes at Island Barn Res. on June 26th had increased to 87 by July 31st; there were 235 at Molesey group of reservoirs on July 9th rising to 781 on Aug. 13th, while at Queen Mary Res. there were 379 on July 24th.**
- S Barn Elms Res., one pair with seven young on Aug. 10th (JJW). Gatton Park, one pair bred (DMB). Kew Gardens, two pairs possibly bred (Kew Gardens Report). Lonsdale Road Res., one pair bred (LAB, MDK). Richmond Park, nine pairs on May 3rd but no young seen (EDB, BAM).

A contrast in recoveries of adults ringed in St. James's Park is provided by a bird ringed in winter recovered at Greenwich six weeks later, another ringed in summer and found in Battersea Park eight summers later and two other recoveries in Finland and the U.S.S.R. respectively. Of these birds the first ringed in September, 1959, was recovered in the following September and the other ringed in January was found in the breeding season. From three other full-grown birds ringed in winter in the Molesey district, one was recovered in Berkshire two winters later and the remaining two in Finland.

57 Pochard

Complete counts of Pochard were made in November, 1960, and January, 1961, when in common with other ducks their numbers were low. Although in December, when fog prevented a complete check, 791 birds were counted, the winter population was evidently well below the level reached in 1955-56, 1956-57 and 1959-60. In this species, where a high proportion of the birds tend to be concentrated in a few large

flocks, the omission of only one of the major waters can often invalidate any use of the results for that date for comparative purposes.

Selected records only are given.

- E* Walthamstow Res., one pair summered (RB).
 H Hilfield Park Res., eight (seven drakes) on June 26th (LAB), a large flock towards the end of the year, 330 on Oct. 2nd and 304 on Dec. 4th (BLS); this locality is not included in the summary above. Hyde Crete G.P., a pair on July 10th (BPP).
 B Colnbrook G.P., a duck on May 24th (PLB).
 M Brent Res., a drake on June 6th (PLB). Queen Mary Res., 24 on June 26th (SG). Stoke Newington Res., 329 on Jan. 6th (JHB). Inner London: Hyde Park, three young reared (RFS). St. James's Park, four broods appeared totalling 19, from which 12 fledged successfully (EHG). Regent's Park, at least eight broods from which 26 fledged successfully (DIMW, EHW).
 K Sutton at Hone G.P., a drake and two ducks in May (WIB).
 S As mentioned in the summary given in *L.B.R.*, 24: 19, numbers were high in January, 1960, and at Barn Elms Res. they reached 850.

58 Ferruginous Duck

- S Barn Elms Res., a drake from Jan. 10th to 27th was seen by many observers and as it arrived with an influx of other diving ducks, it is thought to have been a wild bird. There are, however, full-winged birds being reared in Regent's Park (DIMW, SMG) and reports of an adult drake in St. James's Park in August and of a drake at Brent Reservoir in September probably relate to birds from this source.

Aythya hybrids

- E Walthamstow Res., one on Aug. 13th resembled a Pochard in outline but it had a black head and neck and its mantle and flanks were rather uniform pale greyish (NP).
 M St. James's Park, one resembling a Scaup from January 9th came into full plumage and was last seen on Sept. 15th. A second bird not unlike a Baer's Pochard (*Aythya baeri*) seen from Apr. 27th to May 4th. This, or a similar bird, was also present in 1959 (EHG).
 S Barn Elms Res., a drake closely resembling a Lesser Scaup (*Aythya affinis*) during most of January (mo).

60 Goldeneye

Numbers maintained at about the usual level with a total of 50 on January 15th, 1961.

Recorded at about the usual number of localities, the last birds to be seen in spring being three at Staines Res. on May 3rd (PRC). Highest numbers in the early part of the year were 20 at King George V Res., Essex, on Feb. 22nd (RB) and between 20 and 25 at Staines Res., Middx., on Jan. 30th, Feb. 21st and Mar. 19th (mo). The first to be recorded at the end of the year was at Brent Res., Middx., on Oct. 13th (PLB); a total of *c.* 20 in the London Area in November, with larger

numbers at the end of December, when there were in Middx. 27 at Queen Mary Res. on the 27th (MDK) and about 20 at Staines on the 29th (LAB).

From more unusual localities there came records of single birds at Cheshunt G.P., Essex/Herts., on Feb. 6th (BSMs), Frogmore, Radlett, Herts., on Nov. 20th and in Regent's Park, Inner London, on Dec. 16th (EHW), at Savehay G.P. on Dec. 11th (IGJ), Stoke Newington Res., Middx., on Dec. 3rd and 16th (JHB), Swanscombe Marshes, Kent, on Feb. 7th (WIB) and in Wanstead Basin, Essex, on Jan. 16th (FRT). At Nazeing G.P., Essex, there were up to three from January to March (BSMs) and at Rye Meads S.F., Herts., one at the end of October and on Dec. 17th, with four from Nov. 8th to 26th (TWG, *et al.*).

61 Long-tailed Duck

- H Hilfield Park Res., the immature that was present in December, 1959, stayed until May 8th (LAB, PLB, BLS, EHW).
M King George VI Res., an immature on Dec. 26th (JBC).

62 Velvet Scoter

- E* Girling Res., two drakes on Apr. 2nd (RB).

64 Common Scoter

- E* Girling Res., a duck on Oct. 15th (BSMs). King George V Res., a pair flew in from the south on Apr. 3rd (JCE, JF, RFP).
H Rye Meads S.F., a drake from Apr. 21st to 25th (TWG, BSN).
M Feltham G.P., a duck on Apr. 12th (JBC). Queen Mary Res., a duck on May 7th (BEC). Staines Res., a pair on Apr. 24th (BAM), three on May 1st (LAB, JFC, SG), and one on Nov. 27th (MDK).
S Walton Res., a drake on Mar. 26th and Apr. 2nd (SG).

69 Red-breasted Merganser

- M Queen Mary Res., one on Jan. 17th (mo), and Mar. 12th and 26th (BEC). Staines and King George VI Res., up to two drakes and two ducks from Jan. 1st to Feb. 14th, and a drake at Staines from Nov. 13th to the end of the year (mo).

70 Goosander

Exceptionally numerous in the early months of 1960 but the rising trend referred to in *L.B.R.* 24: 20 and 22: 48 did not continue in the winter of 1960-61, when the average for all the waters included in the wildfowl census was 200.

In the first three months of 1960 there were peaks in Middlesex of 245 at Queen Mary Res. on Feb. 13th, about 100 at Staines and King George VI Res. combined on Jan. 31st, in Surrey 132 at the Molesey group of reservoirs on Feb. 14th and 52 at Island Barn Res. on January 30th. The last was recorded on Apr. 3rd, though a few usually stay several weeks longer, and the first to return was on

Oct. 30th. The largest numbers before the end of the year were about 30 at Staines and King George VI Res. on Dec. 10th, 32 at Queen Mary Res. on the 17th and 100 at Molesey Res. on the 26th.

71 Smew

Smew move about so much from water to water that it is difficult to assess their total numbers, but the count of 70 on January 17th, 1960, referred to in *L.B.R.*, 24: 21 was probably well below the maximum for that winter, as the numbers below suggest. In the succeeding winter of 1960-61, so few were found in the wildfowl counts that any comment is reserved until all the 1961 records for other dates are available

Very few were seen at the Brent Res. in 1960 and the largest flocks from January to March were at Barn Elms Res., Surrey—65 on Jan. 24th and 47 on Feb. 17th, Walthamstow Res., Essex, 25 on Feb. 14th, Stoke Newington Res., Middx., 35 on Feb. 28th, Staines Res., Middx., 35 on Feb. 21st and Hilfield Park Res., Herts., 23 on Jan. 16th. The largest party elsewhere was one of 10 at Wood Green Res., Middx., on Jan. 17th. The last bird in spring was seen on Apr. 7th, the first four of the winter appearing on Nov. 13th; the biggest flock before the end of the year was 11 at Stoke Newington Res. on Dec. 27th.

Other interesting records include in Inner London two in Hyde Park from Jan. 18th to 22nd and a drake in St. James's Park on Feb. 8th: one on Troy Lake, Herts., on Dec. 25th-26th and two in Danson Park, Kent, from Jan. 6th-9th.

73 Shelduck

Recorded away from the Thames estuary between Jan. 3rd and Feb. 7th, on Mar. 29th, between Apr. 18th and May 14th, Aug. 6th and Sept. 29th, on Nov. 13th and between Dec. 8th and 31st. The party of 13 at Staines on May 5th is notable.

- E* Girling Res., one on Apr. 29th (JCE), five on May 1st (RFP), also seen on the same day at King George V Res. by JCE and JF, and one from Aug. 14th to Sept. 2nd (RB, RFP, BSMs). Nazeing G.P., one on May 2nd (FR), two on May 7th (BSMs) and one on Aug. 20th (JCE). Rainham Marsh, up to eight present on all visits from Apr. 3rd to July 6th, one from Aug. 21st to 23rd and three on Sept. 19th (JHB).
- H Hilfield Park Res., two on Dec. 18th (BLS) and three on 27th (EHV). Rye Meads S.F., one from Aug. 6th to Sept. 18th (TWG, BSMs, BSN), and one on Dec. 8th (NR).
- M Brent Res., one on Sept. 29th (LAB). King George VI Res., one on Jan. 10th, six on Feb. 7th (BEC, SG, AQ), and six on Dec. 10th (AJC). Perry Oaks S.F., one on May 14th (DMP). Queen Mary Res., one on Jan. 3rd and 31st and Apr. 27th, two on May 1st and one on Dec. 31st (mo). Shepperton, one flying S.E. on Apr. 25th (DGH). Staines Res., one on Jan. 5th, two on Apr. 18th, 13 on May 5th (RJJ) and one from Dec. 29th to 31st (mo). River Thames, one near Teddington

Lock on Nov. 13th (Js). Inner London: City Road and Regent's Park, an immature flying E. and then S.E. on Aug. 11th (NHP, DIMW).

- K Swanscome Marshes, two on a few dates early in the year, five on Apr. 16th, two adults and four juveniles on July 31st, none after Aug. 4th until three on Oct. 9th, 24 on the 15th and smaller numbers on two dates in November (mo).
- S Molesey S.F., a drake on Mar. 29th (DP).

Geese *sp.*

- K Greenwich Park, about 70 flying N.W. on Jan. 30th were probably *albifrons* (PCT, WGT).
- M Perry Oaks S.F., four grey geese flying S.W. at midday on Mar. 17th (LAB). King George VI Res., five grey geese going west on Mar. 30th (MEN).
- S Richmond Park, from 30 to 35 flying N.E. at 17.20 hours on Mar. 15th (AJC).

76 White-fronted Goose

- M King George VI Res., one arrived from the east on Nov. 12th and then turned north (MC, AGV). Queen Mary Res., 24 arrived from the east and flew off S.W. on Jan. 31st (PRC, AQ). Regent's Park, 11 came in on Jan. 27th to join captive geese before leaving (WHC, Zoo staff). Staines Res. and Moor, one from Feb. 6th to Apr. 3rd (mo).

80 Brent Goose

- E* Walthamstow Res., one on Mar. 5th (RFP); only the second record since 1950.

81 Barnacle Goose

The probability of all the following birds being escapes is high:—

- H Stockers Lake, one from Mar. 5th to 31st (JD, LLE).
- B Kingsmead G.P., a full-winged and unringed adult from May 8th to 29th (DGH).
- M Brent Res., a full-winged and unringed adult from Oct. 1959 to Apr. 1960 (mo).

82 Canada Goose

- E* Thorndon Park, one on Aug. 2nd (MPT).
- B Kingsmead G.P., Sunnymeads, 13 adults and a family of 7 goslings on May 8th (DGH, DMP).
- M Brent Res., up to three from Mar. 1st to 19th (LAB, ES). Hampton, one on Mar. 22nd (SKR). Queen Mary Res., two flying N. on Mar. 27th (BAM). Southall, one pair bred on Mill Pond and had three well-grown young on July 15th (CAW). Staines Res., 9 flying N.W. on Mar. 12th (DGH).
- S Beddington S.F., a very tame bird on Oct. 1st (PFSC). Godstone, one on Mar. 26th (ADB). Near Ham, six on Apr. 16th (LH). Walton

Res., one on Apr. 3rd (MJC, BEN). River Thames, one at Chiswick Eyot on Dec. 1st (AJC) and between Putney and Hammersmith one from Sept. 21st to Dec. 10th (mo).

84 Mute Swan

On the waters covered in the monthly wildfowl census the following counts were made:—

		<i>Oct. 18</i>	<i>Nov. 15</i>	<i>Dec. 13</i>	<i>Jan. 17</i>	<i>Feb. 14</i>	<i>Mar. 13</i>	
1959-60 ...	...	371+	353+	339+	317	245	258
		<i>Sept. 18</i>	<i>Oct. 16</i>	<i>Nov. 13</i>	<i>Dec. 18</i>	<i>Jan. 15</i>	<i>Feb. 12</i>	<i>Mar. 12</i>
1960-61 ...	366	352	331	385	288	227	278	

The vast majority of the swans were on Walthamstow Reservoirs or on the Thames between Putney and Kew, the only stretch of the river included.

85/86 Whooper/Bewick's Swan

M Regent's Park, one on Nov. 6th, thought by the observer to be a Whooper, flew south and then west (DIMW).

85 Whooper Swan

S Island Barn Res., three on Jan. 16th (DP).

86 Bewick's Swan

E* Girling Res., six adults and three immatures on Feb. 9th (BSMs). Walthamstow Res., three adults and four immatures on Dec. 11th (JF, MDK).

91 Buzzard

E/H* Rye Meads S.F., Nazeing and Fishers Green G.P., a single bird was seen on many occasions in these areas from Aug. 16th to Oct. 15th (TWG, JHB, JCE, BSMs).

H Panshanger Park, a pair were present from November, 1959, until March 27th (BLS, TWG, LJJ).

M Edgware, one flying E. low over houses and gardens in Canons Park on Oct. 22nd (EHW).

K Pett's Wood, one circling and drifting S.W. on Oct. 2nd (JMC).

93 Sparrow Hawk

Following a request for information on this now relatively scarce bird, more records were received this year. However, only two pairs are known to have bred. All records are given in full.

E* Epping Forest, singles on Mar. 20th and Sept. 4th (RTB). Rainham marsh, one on Oct. 2nd (JS).

M Broomfield Park, one flying S. on Nov. 29th (FJL). Bushy and Hampton Court Parks, seen on a number of occasions and one pair bred (EMG). Dollis Hill, one flying W. on Oct. 9th (ES). Hampstead Heath, singles recorded in flight over Kenwood in Feb., Mar. and Dec. (Royal Parks Report). Hornsey, one on Oct. 19th (LB). Mill

Hill, singles on a number of occasions including an adult seen to take a sparrow on June 2nd (EHW). Perry Oaks S.F., one on Aug. 7th (BEC). Inner London: City, Eastcheap, one flying S. on Jan. 25th (IBM). Holland Park, one chasing a party of Long-tailed Tits on Oct. 21st (EPB). Regent's Park, one flying N. on Sept. 28th (DIMW).

- S Ashtead, one seen carrying prey into a wood in the breeding season (MJC). Beddington S.F., a female on May 7th (PFSC). Bookham Common, one on Oct. 9th (GB). Coulsdon, one on Apr. 11th (EHH). Dulwich Woods, one on May 7th (WGT). Hersham S.F., a female seen to take a young starling on Aug. 27th (GHG). Oxshott, single birds on Jan. 6th and July 10th (BEC). Richmond Park, one on Oct. 16th (AJC). Selsdon Wood, one pair bred (PFSC). Silvermere, one on Jan. 3rd (GHG). Weybridge, three on Apr. 18th, one flying N.W. on Oct. 15th and one on Oct. 24th (GHG).

94 Goshawk

- S Beddington S.F., satisfactory details have been received of an immature bird, soaring, hunting and scattering Wood Pigeons on Sept. 15th (PJM).

102 Montagu's Harrier

- M London Airport and neighbouring fields, a melanistic male from May 18th to 21st (RJJ, *et al.*).

103 Osprey

- H Broxbourne S.F., one flying N. up the Lea Valley on May 12th (LLE). Springwell Lake, Rickmansworth, one on Sept. 18th (HSM). Satisfactory details have been received in respect of the above two records.

104 Hobby

Two pairs were present in the London Area during the breeding season, one of which probably bred. The actual localities are being withheld from publication; other records are given in full.

- M Brent Res., one on June 26th (LAB, AGV). King George VI Res., single birds on May 6th and 13th (LAB, DGH, RJJ, JBC). Perry Oaks S.F., one on May 21st (JFC) and one or two between Aug. 16th and 20th (JBC, DGH). Queen Mary Res., single birds on July 16th (LAB, AGV) and Sept. 6th (BEC).
- S Beddington S.F., one between May 21st and 29th (MO). Epsom Common, one on July 8th (MJC). Fetcham Ponds, one flying N. on May 14th (MJC). Weybridge, one in flight over the observer's garden on Sept. 8th (GHG).

105 Peregrine

- M Staines Moor and King George VI Res., one on Mar. 6th (JBC).
- K Barnehurst, one on Oct. 28th (WIB). Dartford Heath, one on Dec. 31st (KHP).

107 Merlin

- M Staines Moor and King George VI Res., one on Jan. 17th (PRC, REE AQ).

110 Kestrel

- M Inner London: Portland Place, a pair nested in a ventilator opposite the B.B.C. studios (SC, RPC).

115 Red-legged Partridge

- E Nazeing G.P., two pairs bred (BSMs). Fairlop and Hog Hill areas, coveys of from 7 to 12 birds seen fairly often and the species is apparently holding its own (ACP). Romford S.F., two on June 19th and on four dates between July 17th and 26th. This is the first record of this species in this locality for several years. The surrounding area is now almost entirely built up and it seems likely that the birds must have flown over at least half a mile of houses (RRS).
- H Rye Meads S.F., one pair bred (BSMs).
- M Breeding pairs recorded from King George VI Res., Osterley Park, Perry Oaks S.F., Poyle G.P., Stanwellmoor, Staines Moor and West Bedfont (MO).
- K Eynsford, a deserted nest with ten eggs on July 29th (PAW). Shoreham, a pair on Apr. 10th (HFG). Swanscombe, three pairs and up to 19 birds during the autumn (WIB, RJF).
- S Addlestone, two pairs, one of which bred (GHG). Hersham, adult with ten young on June 30th (WRI). Holmethorpe, bred (RLR). Present during the breeding season at Addington, Bletchingley S.F., Chelsham, Merstham, Molesey Res., Painshill Park, Redhill and Walton Res. (MO).

117 Quail

The records given below are the first since 1958 and are clearly related to unusual numbers elsewhere in southern England in 1960.

- E* Havering, one calling on July 2nd and 3rd (JEF).
- K Eynsford, one calling from a cornfield between July 4th and 29th, was flushed on two occasions (PAW, *et al.*). Sutton at Hone, one calling persistently from a cornfield on June 4th (RVW, TEB, AC).
- S Riddles Down, Whyteleafe, satisfactory details have been received of up to three birds calling from different areas between June 1st and 5th. One bird was eventually flushed from an area of long grass (PFSC).

120 Water Rail

Recorded from 18 localities up to Apr. 29th and from July 24th, maxima six at Beddington S.F. and Leatherhead Watercress Beds, Surrey, in January (RES, BSM, MJC). Of two birds ringed at Leatherhead Watercress Beds in February, 1959, one was recovered at Pfaffenhoffen, Bas Rhin, France, on Mar. 4th, 1960, and the other was killed by a train near Leatherhead on Mar. 15th, 1960.

M Inner London: St. James's Park, one which arrived during a cold spell was present from Jan. 13th to Apr. 19th; it was regularly seen on Duck Island and became quite tame towards the end of its stay, being seen to feed on the boiled corn put out on the island for the ducks (ABMM, H).

127 Coot

Large concentrations of Coots outside the breeding season are given as follows:—

H Hilfield Park Res., maxima of 740 on Jan. 16th and 1,126 on Oct. 2nd (BLS).

M Staines Res., *c.* 900 on Oct. 2nd (PRC). An adult ringed at Abberton Res., Essex, on Jan. 21st, 1958, was recovered at Shepperton, Middx., on May 16th, 1960.

131 Oyster Catcher

E* Girling Res., seven on May 22nd and two on Aug. 8th (JCE, RFP).

K River Thames, seven flying upstream off Swanscombe on Aug. 13th (RVW).

M Brent Res., one on Mar. 18th (LAB). Bushey Park, one on Apr. 3rd (per EMG). King George VI and Staines Res., London Airport and Perry Oaks S.F., single birds on Mar. 19th, Apr. 2nd and Aug. 3rd, at least ten on May 22nd (mo). Queen Mary Res., one flying S.W. on Sept. 2nd (CMV).

S Gatton Park, one on Mar. 31st (DMB, RLF, DS).

133 Lapwing

A similar pattern of hard-weather and mid-summer movements to 1959, with one exceptional movement over the Staines area, Middx., on June 26th, when *c.* 450 flew W.N.W. during the day (SG).

134 Ringed Plover

Largest numbers in spring were recorded at Perry Oaks S.F., Middx., where up to 34 were present from May 17th to 25th with 21 still there on June 11th (mo). Autumn passage recorded from 14 localities from June 21st (one at Moor Mill, Herts.) until late October; largest numbers recorded at Perry Oaks S.F., 51 on Aug. 28th and 48 on Sept. 4th, at Swanscombe Marshes, Kent, from 150 to 200 between Aug. 20th to Sept. 4th (mo).

Details of winter and breeding season records are given below.

M Mill Hill, several calls heard suggested a party of birds moving S. at 20.30 hrs. on Dec. 14th (EHW). Perry Oaks S.F., one on Feb. 21st (PRC). Staines Res., five flying W. on Dec. 10th (JHB).

K Swanscombe Marshes, *c.* 50 on Jan. 31st, *c.* 100 on Nov. 20th, *c.* 50 on the 27th, but only one on Dec. 27th (mo); three, perhaps four pairs nested (RJF, FJH).

S Walton South (new) Res., of three on May 21st, two were apparently paired but none stayed (MJC, PRC).

135 Little Ringed Plover

About 37 pairs summered in the Area, an apparent increase of ten pairs on the population in 1959, cf. *L.B.R.*, 24: 27.

- B One pair was present throughout the breeding season (DGH, DMP).
 E* About 14 pairs at nine sites, of which 12 are known to have bred ; one at least was unsuccessful (KB, JCE, JF, BSMs, ACD, SWLS).
 H Eight pairs at five sites, but only two are known to have bred (JCE, TWG, BPP, JW).
 M Seven pairs at two sites, of which five or six pairs may have bred (JBC, DGH, BSMs, DMP).
 K Two pairs at separate sites, both bred (WIB, HFG, FJH, RVW).
 S Five pairs at two sites, all attempted to breed but at least two failed to rear young (DMB, MJC, PRC, RLR, DS, RNFS).
 Autumn passage, more correctly perhaps the collection of birds after breeding, was noted at various localities, with 10 at Broxbourne S.F., Herts., in early July and 18 at Perry Oaks S.F., Middx. on July 14th.

136 Kentish Plover

- M Perry Oaks S.F., an adult female on Apr. 3rd (LAB, SG, MDK, AGV) matching the 1959 occurrence and the fifth in the London Area since 1900, see also *B.B.*, 54: 184.

139 Grey Plover

- E* King George V Res., one on July 30th (RFP). Rainham Marsh, one on July 6th (JHB). Walthamstow Res., one on May 2nd (RFP).
 H Hilfield Park Res., two on Feb. 21st (EHW).
 M Perry Oaks S.F., three on May 14th (RJ), single birds on Sept. 24th and 25th, Oct. 1st, 2nd and 15th (AJC, JBC, PRC, SGC, SK, DMP).

140 Golden Plover

Less well represented both in winter and on passage than in 1959, with apparently no spring passage and none in autumn before Aug. 14th. Largest winter flocks are given below.

- E Rye Hill, near Thornwood Common, c. 170 on Feb. 22nd and c. 130 on Mar. 27th (JHB, DIMW).
 H Shenleybury, c. 200 on Dec. 31st (JHB, EHW).
 M London Airport, up to 200 from January to April (mo).

143 Turnstone

In contrast to 1959 and more in keeping with the spring movements of this species in Essex, a pronounced passage in May.

- E* Girling Res., single birds on Aug. 6th and 12th (RFP).
 M Brent Res., one on May 1st and two on the 9th (LAB, PLB). King George VI Res., two on July 31st and Aug. 3rd (LAB, PLB). Perry Oaks S.F., in spring one on Apr. 23rd, followed by up to five between May 13th and 18th, one on the 28th and 29th; in autumn one or two from July 30th to Aug. 2nd and two on Sept. 17th (mo).
 K Sevenoaks, one on May 1st (KOS). Swanscombe Marshes, none in

spring, but up to eight on eight dates between Aug. 14th and Sept. 10th (WIB, RJF, FJH, RVW).

- S Barn Elms Res., single birds on May 10th and 20th (NHP, PJO).
Walton Res., one on July 30th (GHG).

145 Snipe

Breeding records are given in full.

- E* Rainham Marsh, one pair bred unsuccessfully (swls). Sewardstone G.P., one pair bred (BSMs).
H Rye Meads S.F., four pairs bred (BSMs).
S Beddington S.F., two pairs bred (BRS).

The numbers wintering at Elmers End S.F., Kent, fell to a maximum of *c.* 350 (against *c.* 500 in 1959). A wintering bird ringed there was recovered in Pskov, U.S.S.R., on Aug. 15th, 1960, further confirmation of whence the wintering population comes, well east of central Europe; up to *c.* 1000 at Beddington S.F., Surrey, during January.

147 Jack Snipe

No group of more than 30 at any winter locality; spring records include one at Stanwellmoor G.P., Middx., on May 6th, a late date.

148 Woodcock

Records for the breeding season and Inner London are given in full.
H Broad Riding Wood, Balls Wood and Hoddesdon Park Wood, a survey by TWG discovered at least four pairs, three pairs and two pairs respectively in these areas (another example of how many more birds there may be in the London Area than is guessed at from random observation).

- B Iver, one roding in Black Park on May 27th (DGH).
M Ruislip, one on May 22nd (EHW). Inner London: Hyde Park, one on Mar. 21st (ABMM). Holland Park, one on Oct. 30th (RB, per EPB).
S Addington, one roding on Apr. 8th (DS). Esher Common, up to three from June 1st to 21st (JFC, SG). Princes Coverts, two roding from March to June (BEC, JFC, SG, DP). Selsdon Wood, one roding on Apr. 18th (DS).

A full grown bird ringed at Romford, Essex, on Oct. 23rd was 290 miles further to the W.N.W. by Nov. 24th.

150 Curlew

No flock of more than 12 birds were seen, but generally more widespread than in 1959; the number of localities at which this species was seen in each month is given below.

<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>April</i>	<i>May</i>	<i>June</i>
4	—	7	4	3	5
<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
8	9	7	2	—	1

This table shows a similar pattern to that published in the *L.B.R.* 24 : 30, except that the autumn movement started earlier and did

not show such a pronounced peak in August. Two records from central London, where 12 were seen at Hampstead Heath, Middx., on Apr. 17th (RWG) and one was heard calling flying S. from Regent's Park at 10.30 hrs on July 19th (DIMW).

151 Whimbrel

Analysis of spring occurrences at six localities shows first records of four birds on Apr. 24th, a period of through passage of at least 12 birds from Apr. 30th to May 7th and one straggler on May 23rd; in the autumn there were only scattered records of 11 birds at eight localities between July 23rd and Aug. 27th, except at Ashted, Surrey, where many heard calling from about one and a half minutes at 00.10 hrs on Aug. 26th appeared to be moving W.; one at Swanscombe Marshes on Sept. 24th.

154 Black-tailed Godwit

- E* Nazeing G.P., one on Feb. 24th (BSN). Rainham Marsh, two on Aug. 16th, one on the 30th (JHB, PJS).
 M Perry Oaks S.F., one on May 1st (MC), three on July 10th (JRP). Queen Mary Res., one on Aug. 6th and 7th (BEC, MJC, AQ, SKR). Staines Res., one on July 24th (LAB, AGV).
 S Barn Elms Res., one on Sept. 11th (PJS). Hersham S.F., one on Apr. 30th (SG).

155 Bar-tailed Godwit

- E* Nazeing G.P., one from Sept. 1st to 4th (JCE, BSMs, FR).
 K Swanscombe Marshes, one on July 23rd, two on Aug. 28th, Sept. 3rd and 4th (WIB, KOS).

156 Green Sandpiper

The number of localities at which this species occurred in each month is given below.

<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>April</i>	<i>May</i>	<i>June</i>
7	4	2	5	7	3
<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
12	15	9	3	5	2

As in 1959, the main autumn passage took place in July and August with an unusually high count of 17 at Broxbourne S.F., Herts., on Aug. 12th (TWG, BSN). One Inner London record, one in Hyde Park on Nov. 16th (EHW).

157 Wood Sandpiper

Although scarcer than in 1959, this species provided very unusual records on both passages; one, the earliest on record for the London Area, at Barn Elms Res., Surrey, on Apr. 9th (KVE, MDK) was fully substantiated by field notes, only four birds at three localities in May, none in June but a long series of autumn records began on July 6th continuing for four months; although at least 42 birds were seen,

detailed analysis of the records reveals little pattern since no more than three were seen anywhere on any date and there is evidence of long "off-passage" stays at Swanscombe Marshes, Kent and Perry Oaks S.F., Middx. *At Romford S.F., Essex, with wetter conditions than usual prevailing in summer and autumn, Wood Sandpipers were unusually common with single birds thrice in July, four times in August (with three on the 5th) and more surprisingly, on Oct. 2nd, 15th and, almost without precedent, eleven times between Oct. 21st and Nov. 6th (with two on Oct. 23rd); these are the latest records noted for the London Area. One other October record, one at Hoddesdon S.F., Herts., on the 11th.

159 Common Sandpiper

No instances of even suspected breeding were reported, but recorded in every month with winter records from three localities in January and February, two in November and one in December. Unusually prominent in Inner London with no less than ten on the Thames mud south of Lambeth Bridge at 07.15 hrs on May 11th (GHG) and seven other single birds in May, June and September.

161 Redshank

Winter records from thirteen localities, but of very small numbers and regular only at Swanscombe Marshes, Kent, and Beddington S.F., Surrey. Breeding season records are given in full; comparison with *L.B.R.*, 24 : 32 suggests a decrease in the total population.

- E* Fisher's Green G.P., three pairs present, but no young were seen (JCE, BSMs). Rainham Marsh, at least seven pairs present in mid-June (JHB). Sewardstone G.P., one pair bred (BSMs).
- H Hoddesdon S.F., one pair bred (BSMs). Rye Meads S.F., at least seven pairs bred (TWG). Waverley G.P., near Cheshunt, one perhaps two pairs bred (JW).
- M Brent Res., one or two birds present from Mar. 31st to June 25th (LAB). Staines Moor, one pair but success not known (LAB). Stanwellmoor G.P., four pairs bred, but only three out of a total of 16 eggs hatched (BEC, DGH, DMP).
- K Swanscombe Marshes, "fair" in summer; a definite decrease in the breeding population (WIB).
- S Beddington S.F., from six to eight pairs bred (BRS). Walton South (new) Res., two pairs bred (MJC, PRC, DP).
One Inner London record, two resting on barges off Lambeth on Oct. 3rd (GHG).

161 Spotted Redshank

Exceptionally few records, especially when compared against 1959.

- E Rainham Marsh, three from Sept. 19th to 21st (JHB).
- M Perry Oaks S.F., one on Aug. 28th (PADH, BAM, SKR). Stanwellmoor G.P., one on Apr. 21st (JBC).

165 Greenshank

All but one of the spring records fell between May 3rd and 8th: these are given in full.

- E Walthamstow Res., two on May 3rd, one on the 21st (JF).
 M King George VI Res., one on May 8th (SG). Staines Res., one to three from May 5th to 8th (LAB, BEC, JPC, BAM). Stanwellmoor G.P., one on May 3rd and 5th (JBC, DGH).
 Autumn passage from July 6th to Oct. 19th, *maximum 12 at Rainham Marsh, Essex, on July 10th (JHB).

169 Knot

The numbers at Swanscombe Marshes, Kent, in October and November are the highest recorded for the London Area.

- E Rainham Marsh, one on July 30th and Aug. 4th, two on Sept. 16th (JHB, SWLS).
 M Brent Res., single birds on Mar. 25th and Sept. 21st (LAB). Perry Oaks S.F., one from Aug. 15th to 17th, two on the 18th, 19th and 31st, one on Sept. 4th, 14th, 17th, 18th and two on the 12th (mo). Ponders End S.F., one on Oct. 1st (RFS).
 K Swanscombe Marshes, one on Aug. 9th, three on the 13th and six on the 14th (FJL, RFP, KOS, RVW); 35 on Oct. 23rd, *c.* 250 on the 31st, *c.* 200 on Nov. 5th and 20th (MSC, JGS, RVW) and ten on Dec. 11th (PRC).
 S Barn Elms Res., single birds on May 27th and Aug. 27th (PJS). Walton South (new) Res., one on Sept. 1st (JFC).

171 Little Stint

- E* Girling Res., four on Sept. 28th, six from Oct. 4th to 9th (BSMs, FR). King George V Res., four on Sept. 26th, one on the 28th (BSMs). Rainham Marsh, five from Sept. 19th to 21st, two on the 23rd (JHB, SWLS). Romford S.F., three on Sept. 18th, four on the 19th; the first records for this locality (RRS).
 H Broxbourne S.F., one on Sept. 4th, six on the 17th and two on the 25th (JCE, TWG, BSMs, BSN). Hilfield Park Res., five on Oct. 6th (MC). Old Parkbury G.P., one on Aug. 3rd (EHW).
 M Perry Oaks S.F., two on May 17th, one from May 28th to 30th (JFC, SG, DGH, RJJ); in autumn present on many dates from July 21st to Oct. 17th (an unusually long period of passage) with maxima, 23 on Sept. 18th, 25 on the 25th and from 10 to 15 on Oct. 1st (mo). Ponders End S.F., four from Sept. 25th to 27th, up to four from Oct. 1st to 8th (JCE, JF, BSMs, FR, RFS).
 K Elmers End S.F., two on Oct. 2nd (PM). Sevenoaks, one from Sept. 21st to 24th (KOS). Swanscombe Marsh, an adult in summer plumage on June 22nd; single birds on July 24th and 31st and on seven dates in August, present on five dates in September with maxima, 42 on the 18th and 24 on the 24th (seven observers).
 S Walton S. (new) Res., one on Sept. 21st, 10 on Oct. 1st and two on the 9th (DP).

It is clear that in common with many other regions, the London Area received exceptional numbers of this species during the autumn; at least one hundred birds must have passed through with the largest arrivals on Sept. 18th, as in Essex and at Walland Marsh, Kent. The records in May and June are also of great interest, being the first since 1957.

176 American Pectoral Sandpiper

- M Perry Oaks S.F., three separate birds considered to have been present, on July 29th and 30th, Aug. 21st and from Aug. 26th to Sept. 3rd (mo). In the year when there was an avalanche of Little Stints, these records are of considerable interest for some individuals of the two species must breed the world apart !

178 Dunlin

Winter records away from the Thames estuary at seven localities, but it was the river that produced the really exceptional records for the year. At Swanscombe Marsh, Kent, numbers at a high-tide roost established on the sludge beds began to build up from early October, with *c.* 300 on the 9th and then up to *c.* 1800 from the 23rd to the 31st; the total continued to grow in November to a maximum of *c.* 2500 on the 20th; on Dec. 11th, *c.* 2000 were on the opposite shore (in Essex) but soon afterwards the numbers began to fall, with only a few hundreds remaining in January, 1961. These records are completely without precedent; the main feeding ground of the birds is likely to have been the Cliffe Marshes.

179 Curlew Sandpiper

- E* Girling Res., two on Oct. 1st (RB), one on the 14th (BSMs). Rainham Marsh, one on Sept. 19th (JHB). Romford S.F., fourteen on Sept. 3rd and 4th, five on the 10th, four on the 11th and three on the 18th: the first records for this locality (RRS).

H Maple Lodge, near Rickmansworth, one on July 24th (MC, IGJ).

- M Brent Res., 36 on Sept. 28th: the largest flock so far recorded in the London Area (LAB). Perry Oaks S.F., up to four from Aug. 26th to 30th, single birds on from Sept. 7th to 10th, on the 24th and on Oct. 1st (mo). Ponders End S.F., two from Sept. 8th to 10th (JCE).

- K Swanscombe Marsh, recorded from Aug. 13th to Sept. 24th, with maxima *c.* 30 on Aug. 28th and on Sept. 4th (WIB, KOS, RVW).

Although the period of passage is more restricted than that of the Little Stint, a similar number of birds were involved in the exceptional movements.

181 Sanderling

- E* Girling Res., single birds from May 1st to 3rd and on the 23rd, but four on the 11th and seven on the 22nd; one on Aug. 1st (JCE, JF, RFP). King George V Res., two on May 29th (BSMs). Sewardstone G.P., two on May 21st (JCE).

- M Perry Oaks S.F., one or two on seven dates between May 17th and 30th; two on July 25th (JFC, PRC, DGH, RJJ, DMP).
 S Walton S. (new) Res., single birds on Aug. 31st and Sept. 1st, six on Sept. 25th (BEC, JFC, MJC).

184 Ruff

This species continues to winter in the Perry Oaks S.F. and Staines Moor area of Middlesex, the flock numbering 28 in the early months of the year but only about 12 from October to December. The only other winter records are of one at Walthamstow Res., Essex, on Dec. 4th (RFS) and three at Littlebrook, Kent, on Dec. 27th (FJH). Only two spring records away from the wintering area, single birds at Beddington S.F., Surrey, on Apr. 8th (BRs) and at Molesey S.F., Surrey, from May 6th to 8th (EJC, WRI, DP). An adult Ruff was at Perry Oaks S.F., Middx., on June 26th, possibly a forerunner of the autumn passage recorded at ten localities from July 3rd until October, with maxima 23 at Swanscombe Marsh, Kent, on Sept. 2nd (WIB) and 26 at Romford S.F., Essex, on Sept. 3rd (RRS).

187 Grey Phalarope

Since the publication of *The Birds of the London Area since 1900*, the occurrences of this species have become more frequent, the number of birds in each year being:

1955	1956	1957	1958	1959	1960
1	—	5	4	5	3

giving a total of eighteen in six years, almost the same number as that recorded in the previous fifty-four years. The appearance of this species is closely linked to the increasing activity of the Atlantic storm tracks and record numbers were recorded in the Isles of Scilly by London observers in both 1959 and 1960. The localities and dates of the three birds in the year under review were Rye Meads S.F., Herts., from Oct. 4th to 10th, Queen Mary Res., Middx., on Oct. 12th and Fetcham Ponds, Surrey, from Sept. 3rd to 6th (an early bird more likely to have come from the east than out of the Atlantic).

188 Red-necked Phalarope

E/M* Girling Res. and Ponders End S.F., one on Oct. 1st (RB, JF, RFS).

193 Arctic Skua

Recorded for the first time since 1957.

- M Perry Oaks S.F., an adult flying N.E. on Aug. 14th (DAE, SKR, BS).
 Queen Mary Res., an adult on Sept. 20th (BEC, JFC).
 S East Molesey, one found dead on Oct. 22nd (DP).

193 Great Black-backed Gull

Records of this species were received from a few more observers than in 1959, but more reports are needed before an adequate picture of its status can be drawn. Selected records are given below.

- H Hilfield Park Res., the numbers of roosting birds on Feb. 6th was 342 at 16.00 hrs and on Nov. 20th *c.* 150 adults at 14.45 hrs (BLS).
- M An immature bird found dead at Queen Mary Res. on Mar. 19th had been ringed on Steep Holm, Bristol Channel, in July 1959.
- K Swanscombe Marsh, *c.* 350 on Feb. 4th (RJF).

199 Lesser Black-backed Gull

Recorded from a number of widespread localities during the winter, with maxima of *up to 250 at Fairlop G.P., Essex, from January to March (ACP), *c.* 150 at Gunnersbury Park, Middx., on Jan. 18th (MW) and 226⁷ at Beddington S.F., Surrey, on Jan. 16th (BSM).

200 Herring Gull

Only eight observers submitted records of this species, none of which refer to flocks in excess of a hundred birds. Members are urged to pay more attention to this species.

202 Glaucous Gull

- M King George VI Res., one on Jan. 10th (BEC, AQ). Queen Mary Res. and Charlton G.P., single birds on Jan. 17th, Apr. 23rd and 24th (BEC, JBC, JFC, MC, AQ).

203 Iceland Gull

- M Charlton G.P., one on Mar. 20th, 21st, 24th and 26th (BEC, JFC, MEN, AQ).

202/203 Glaucous/Iceland Gull

- H Broxbourne, the bird recorded at Lodge Hollow in December, 1959 (*L.B.R.*, 24 : 37) was seen flying N. on Jan. 1st (BSN).
- M Brent Res., an adult on Nov. 20th (LAB).

207 Little Gull

At least five birds in spring, the first in that season since 1957.

- M King George VI and Staines Res., in spring single adults on Apr. 3rd and 30th, two immatures from May 3rd to 22nd (another found dead on the 10th); in autumn, single immatures on Aug. 27th and 28th, Sept. 2nd and from the 15th to 18th, two on the 24th and one on Oct. 1st and 2nd, two adults and two immatures on Oct. 8th and 9th and finally, an immature on the 12th (mo). Queen Mary Res., one on Apr. 27th (BEC).
- Inner London: Hyde Park, one found dead by the Serpentine on Jan. 15th (RFS).

208 Black-headed Gull

The breeding population at Perry Oaks S.F., Middx., was *c.* 250 pairs on May 22nd (PRC, REE), showing a considerable increase over the number of birds present in 1959 and possibly above that of 1954/55 as well.

Four birds ringed in London in December, 1952, January and October, 1959, and March, 1960, were recovered in 1960, the respective localities being Uusimaa, Finland, Gronigen, Holland, near Chocen, Czechoslovakia and Aarup, Denmark. The dates of these recoveries fall between March and June and clearly refer to members of widely scattered European breeding populations. Compare with *L.B.R.*, 19 : 28-29, 21 : 26, 22 : 22 and 23 : 30.

211 Kittiwake

- E* Girling Res., an adult found dead on Oct. 7th (BSMs).
- M Brent Res., an immature from Aug. 20th to 23rd and an adult on Nov. 20th (PLB, RWG).
- K Swanscombe Marsh, an adult on Feb. 27th (FJH).
- S Ashtead, an adult flying E. on Jan. 1st (MJC). Selhurst, an adult flying E. on Sept. 30th (PJM).

212 Black Tern

A single bird at Staines Res., Middx., on Apr. 10th, provided the earliest record to date of this species (see *The Birds of the London Area since 1900*, p. 204), but no other records were obtained until Apr. 30th, when two were seen at Walthamstow Res., Essex, and three were at Staines Res. Following one newly arrived bird at Barn Elms Res., Surrey, on May 4th, there were one or two there and at Staines Res. on the 6th. On May 8th, two waters in the north (Hilfield Park Res., Herts., and Brent Res., Middx.) received their first birds and there were two at Staines. No records have been submitted for the next two days (a Monday and a Tuesday), but on the 11th, no less than 128 were seen at five waters, those observed in the Lea Valley passing N. in the late afternoon and evening. This peak movement left a "shadow" of 38 at three waters on the 12th and 18 at the same waters on the 13th, but thereafter daily records never totalled more than four until the 21st, when one or two were seen at five waters; on the 22nd, there were 14 at four waters, the records suggesting that another wave of birds was on the move. Unfortunately, *as so often happens*, observations following the 22nd was insufficient to keep trace of the birds and apart from 24 at King George V Res., Essex, on the 28th, the only other spring record was of four at Barn Elms Res. on June 4th.

It is interesting to note that largest spring flock noted in Essex was *c.* 50 at Abberton Res. on May 12th, the day after the peak movement through the London Area; see *E.B.R.*, 1960 : 27 and cf. *L.B.R.*, 24 : 38.

In contrast to 1959, the autumn passage produced more birds than the spring movements, with records from July 23rd to Oct. 9th. To the east and south of the London Area, there was strong passage on Aug. 10th, but none of the birds concerned appeared to have penetrated inland; later in the month, however, and especially between Aug. 27th and 30th, there was a similar pattern of occurrence in

Essex, North Kent, the London Area and in the English Channel off Dungeness, with, at London waters, a maximum of 148 birds at five localities on the 28th. On this day there were over 1,000 off the Isle of Sheppey, Kent; see also *E.B.R.*, 1960 : 27 and *Dungeness Bird Observatory Report*, 1960 : 12. In September, there was some evidence of a movement in the third week, with 12 at Staines Res. the largest party seen.

217/218 Common/Arctic Tern

Passage records for the year under review are rather unusual, showing close similarity to the movements of Black Terns. In spring there were records between Apr. 24th and May 27th, with two isolated records in June: the maximum numbers occurred on May 11th and 12th, when at least 99 passed through the London Area (some travelling with Black Terns). In autumn, there were records from July 6th to Oct. 2nd, with a peak on Aug. 27th when *c.* 40 were seen at Staines Res., Middx., and *c.* 60 were watched flying up the Thames at Woolwich Ferry.

219 Roseate Tern

M King George VI Res. and Staines Moor, two flying E. on May 12th (MC, DGH, RJJ). This constitutes only the second definite record of this species for the London Area and is clearly linked to the movements of the two species above.

222 Little Tern

E* King George V Res. and Walthamstow Res., single birds on May 1st (JF).
 M Brent Res., one on Apr. 29th and two on May 1st (RWG, PJS). Queen Mary Res., one on May 6th and 9th (LAB, PLB). Staines Res., one on May 6th and three on May 12th (MC, RJJ).

223 Sandwich Tern

E* Girling Res., one on July 17th (JCE).
 H Hilfield Park Res., one on Apr. 10th (EHW).
 M Brent Res., one on July 15th, two on Aug. 16th and 19th (DJB, AGV, EHW). Perry Oaks S.F., one on May 21st (JBC, DGH, DMP). Staines Res., one on May 2nd, two on June 6th; one on Aug. 21st (JBC, DGH, DMP).
 K Swanscombe Marsh, at least ten on Sept. 9th and Oct. 2nd (RJF, KOS).

224 Razorbill

M Inner London: River Thames, one flying up stream on Oct. 18th chose to fly over rather than under Westminster Bridge, clearing it at the second attempt (GT).

232 Stock Dove

Although recorded in five localities in Inner London during the year, nearly all observers concerned commented on this species' scarcity in

former breeding haunts. No proof of breeding was obtained for any of the Royal Parks and observers are asked to take careful note of Stock Doves, both in central and *suburban* London.

234 Wood Pigeon

A summary of the autumn movements of this species can be found on p. 63-66, but particular mention is made of the following.

- M Brent Res., a heavy movement on Dec. 28th began at 08.15 hrs G.M.T., "the passage continued for half an hour in a long stream, after that there were odd parties for an hour." It was impossible to estimate the numbers accurately, but at least 10,000 passed S.W. at 200 feet (DT).

237 Cuckoo

No less than ten records of birds in flight or calling in Inner London between May 4th and June 20th; one was also heard in Holland Park later in June.

Careful records kept by RBW contain some evidence for the Harold Wood area of Essex of the apparent decrease in the numbers of this species, but observers are reminded that more information is needed before any trend can be confirmed.

241 Barn Owl

Though less attention was paid to this species than in 1959, it was found in 14 localities in the breeding season and the suggestion of a current increase in the breeding population is thus confirmed. Observers are asked to be on the alert for this species in 1962 so that its current status can be defined.

246 Little Owl

- M Inner London: Regent's Park, one yelping on Oct. 27th (EHW).
Gillingham Street, Pimlico, one found dead on Dec. 7th (RGP).

248 Long-eared Owl

- B Iver, one in Black Park on Apr. 7th (RJJ).
M Hampstead Heath, one on Dec. 27th (RWG).

249 Short-eared Owl

Fewer than in 1958 and 1959.

- E* Girling Res., one on Dec. 26th (RB). Rainham Marsh, three on Apr. 3rd, one on Sept. 19th and two on Dec. 7th (JHB).
M Perry Oaks S.F., one from Feb. 19th to 28th, one on the unusual date of May 11th and one or two birds from Nov. 20th to the end of the year (seven observers).
K Swanscombe, one on Jan. 30th (FJH).

252 Nightjar

All records are given, but it is clear from the notes submitted that less

attention was paid to this species in 1960 and no direct comparison with past years can be made.

- E* Warley, one churring on May 31st (MSF).
- H Broad Riding Wood, five churring on June 11th (BLS). Broxbourne Woods, "several" calling on July 1st (ECD).
- B Iver, four pairs found in Black Park in May (DGH, RJJ).
- M Ruislip, one churring in Copse Wood in June (BPP, EHW).
- K Bean, two heard on May 23rd (WIB). Hosey Common, Westerham, a pair on June 5th (WGT). Shoreham, eight heard in this area on June 29th (KOS).
- S Esher Common, one pair during breeding season, three on June 15th (JFC, SG, PJO, JRP). Farleigh, a pair from June 21st to 30th and on July 14th (PFSC). Headley Heath, two churring on June 2nd (GB). Princes Coverts, at least three pairs "breeding" (SG, DP). Walton Heath, four on July 8th (JC, IBM).

255 Swift

None before Apr. 23rd, but first records from several localities on the next day; one pair of breeding birds was back at a nest site in North London on Apr. 25th, but many more "came home" on May 5th (as in 1959); heavy through passage on May 15th and again on 21st and 22nd; prominent again in Inner London during breeding season; autumn passage from July 5th with widespread movements from July 22nd; by Aug. 23rd most birds had gone south, but there were several records on Sept. 3rd indicating a further small passage. October records in which the London Area matched national occurrences (see also *B.B.*, 54 : 48) are given in full.

- E King George V Res., one on Oct. 3rd (BSMs). Waltham Abbey, one on Oct. 2nd (JCE).
- H Rye Meads S.F., one on Oct. 1st (BSMs).
- M Queen Mary Res., one on Oct. 8th (SG).
- K West Wickham, one on Oct. 2nd (DH).
- S Ashted, one on Oct. 6th (MJC). Chessington, one on Oct. 5th (DP).

Of 39 local recoveries in the London Area of birds ringed by MJC, KDE and AQ, one was in its seventh year, two in their sixth and ten in their fifth. The oldest of these may well have flown 50,000 miles in migration flight alone !

259 Kingfisher

Breeding season records from fifteen localities, all but two south of the Thames, but no summary of its current status in the London Area is yet possible.

261 Hoopoe

- E* Walthamstow Res., one on Apr. 16th (NHP).
- S Wimbledon Common, one on Apr. 21st (RW).

262 Green Woodpecker

- M Inner London: Queen's Park, one on Apr. 11th (PLB).

263 Great Spotted Woodpecker

Recorded from only five areas in Inner London, but juvenile or immature birds were seen in Holland Park, Lambeth Palace Gardens and Regent's Park. Full proof of breeding was obtained only for the first locality.

264 Lesser Spotted Woodpecker

Noted in thirty-one localities throughout the London area; records for Inner London are given in full.

- M Inner London: Holland Park, one pair from Mar. 13th to Apr. 9th, one on Apr. 24th and prolonged drumming heard on May 13th (EPB, RBR). Regent's Park, a cock on Feb. 20th (DIMW). Primrose Hill, one on Mar. 12th (DIMW).

265 Wryneck

- H Old Parkbury, a migrant on May 4th (EHW).
 K Hayes, one heard on Aug. 20th (AWB). Pratts Bottom, birds were heard calling in the first half of May near the 1958 and 1959 breeding place, but no nest was located (PMW).
 S Addington, one trapped on Sept. 24th (ADB). Chipstead, one pair first seen on Apr. 10th stayed throughout the breeding season, but with no known success (LIC, MJC). Oxshott Heath, at Sandy Lane, two on May 29th, single birds on June 5th and 26th (BAM, PJO). Woodmansterne, one heard on May 8th (MJC).

271 Woodlark

Following the recent paper on this species (*L.B.R.*, 25 : 71 to 80), no detailed summary of records is given. At least ten and possibly fourteen pairs were present in four counties during the breeding season. Winter records given below are of considerable interest, for although Woodlarks do wander considerably at times, there was no really hard weather in January and February.

- M Brent Res., six on Jan. 17th and five on the 22nd (RWG). Mill Hill, one flying S.W. on Feb. 6th (EHW).
 S Addington, one flying W. on Jan. 24th (DS). Weybridge, "small numbers in twos and threes" flying S. from 09.30 to 10.15 hrs on Jan. 24th (GHG).

272 Skylark

Two records of unusual interest are given below; autumn movements are described on p. 61-66.

- E Old Ford, near Bethnal Green, two pairs present during breeding season, at least one rearing young (JHB). This locality lies less than three-quarters of a mile from the Inner London boundary and is nearer to Charing Cross than any nest sites quoted in the *Birds of the London Area since 1900*. The birds were almost completely surrounded by factories and goods yards.
 S Croydon, parties were heard moving W. after dark on Jan. 20th (DS).

Short-toed Lark

- M Staines Moor, one from June 8th to 16th (JBC, MC, RJJ, DGH, DMP). All observers submitted their field notes, which together establish this first record for the London Area beyond doubt (see also *B.B.*, 54 : 189).

Hirundines

Unusually numerous records of Swallows and House Martins in late autumn are noted on p. 66. A Swallow ringed at Elm Park, Essex, on Oct. 4th must have done an average of 84 miles a day to reach Sanlucar, at the mouth of the Guadalquivir, Spain, on Oct. 17th.

281 Hooded Crow

- H Hoddesdon, one on Dec. 24th (BSN).
 M Brent Res. and Rubbish Tip, one from Jan. 24th to Apr. 3rd (LAB, PLB, RWG) and one from Nov. 14th to Dec. 22nd (LAB, DT, AGV). Bushy Park, one on Mar. 20th (per EMG). Charlton G.P., one on Mar. 22nd (SKR). Hampstead Heath, one from Dec. 19th, 1959, to Mar. 20th (DEDC, PC, AMCD, JDD), one on Nov. 14th (DG). South Hendon, two on Mar. 25th (EHW).
 S Brooklands, one on Mar. 12th (LH).

282 Rook

- M Inner London: Holland Park, one found dead on Jan. 31st (EPB). Regent's Park, three flying N.N.W. on Oct. 28th (DIMW).

283 Jackdaw

Again no proof that this species bred in Inner London; young birds were last seen in 1957, which means that the adults still resident (if that is their status) in Hyde Park and Kensington Gardens must be at least three years old.

284 Magpie

Records of this species in a residential part of Dulwich, Kew Gardens and Regent's Park, together with more regular observations from suburban areas south of the Thames, suggests an attempt to penetrate further into the metropolis. Observers are asked to take careful note of Magpies in suburban or urban areas.

The observations in Regent's Park appear to be the first for Inner London and are given in full.

- M Inner London: Regent's Park, two on Oct. 11th, single birds on five other dates; one or two on several dates in November and a single bird in the duck sanctuary throughout December. Some of these may have been migrants, but are more likely to have come down from Hampstead Heath (DIMW *et al.*).

286 Jay

Since no summary of the Inner London breeding population has appeared since 1956, this is given.

M/S Inner London: Holland Park, at least two pairs bred (EPB). Hyde Park and Kensington Gardens, "assumed to have bred" (CHH, CHFP). Lambeth, a pair and three juveniles in the Palace grounds on July 29th (GHG). Regent's Park, at least one pair bred but only one bird fledged successfully (DIMW); also recorded during breeding season from Paddington Green and Queens Park. More observations are needed from the Kensington squares and gardens.

288 Great Tit

A full-grown bird ringed by GB at Esher, Surrey, on Oct. 22nd, 1959, was re-trapped and released at Wellun, East Frisian Islands, Germany, on Apr. 9th, 1960. This interesting recovery provides further evidence of a tit irruption in the autumn of 1959.

290 Coal Tit

Present in Inner London during the breeding season at Holland Park and Regent's Park; a juvenile was seen in the former locality on June 21st (EPB, DIMW).

292 Marsh Tit

M Regent's Park, one on Nov. 28th (EHW).

S Lambeth, two in the Palace Gardens on Sept. 15th (GHG).

293 Willow Tit

One April and one October record only from Essex; in the breeding season at least five pairs at four localities in Hertfordshire, up to ten pairs at five localities in Middlesex and at least six pairs at three localities in Surrey; one January record only in Kent. Two were seen in reeds at Rye Meads S.F., Herts., on Jan. 17th (JW).

294 Long-tailed Tit

Although most records of diurnal migration in 1960 are being omitted from the systematic list pending comprehensive publication elsewhere, the autumn movements of this species were so unusual that a summary is given below.

Regular *garden* observations at Esher, Surrey, pointed to unusual numbers as early as Sept. 9th, but it was not until Oct. 2nd that birds penetrated central London with 13 flying S. over Fulham the largest party noted; thereafter throughout the London Area observers began noting this species as "more" or "far more numerous" than usual; undoubtedly some parties of birds were wandering at random from October to December, but a definite build-up in numbers can be detected by Oct. 11th: on the 17th, birds were moving west through Woolwich, on the 18th eight flew W.N.W. over Primrose Hill and on the 21st, a flock of c.20 was in Holland Park (a record number for

Inner London) and several flocks of up to 11 birds were noted throughout the metropolis to the end of the month; a fresh wave of birds probably started to move through on Nov. 5th, when arrivals were noted at Walthamstow Res., Essex, and at Perry Oaks S.F. Middlesex; shortly afterwards further reports of unusual numbers on the move were coming in from Surrey, S.W. Middlesex, Central London and Hertfordshire, while in Essex, no fewer than 38 passed S. over King George V Res. on the 7th; on Nov. 15th, *c.* 30 moved N.W. at Chessington, Surrey, and on the 26th, no fewer than 50 flew high to N.W. over the Walton S. Res., Surrey; there was only one December record for Inner London, but the numbers at Walthamstow Res., Essex, reached *c.* 30 in this month (see also *Bird Migration*, 1 : 233).

295 Bearded Tit

Following an explosive irruption from the East Anglia marshes (described in *B.B.*, 54 : 46), this species occurred for the first time in the London Area and made sure that it was not missed as well !

- E* Walthamstow Res., a diurnal arrival of 15 was almost certainly recorded on Oct. 16th, a day of extraordinary migratory pressure in many species, the birds remaining until the end of the year (mo).
- H Broxbourne S.F., one on Nov. 12th (TWG). Stanborough, of six in a reed-bed by the River Lea on Nov. 30th, two remained on Dec. 1st (GK).
- M Perry Oaks S.F., one from Nov. 26th was trapped on Dec. 10th by DGH and remained until the end of the year (mo).
- K Swanscombe, five from Oct. 30th to the end of the year (mo); all were trapped and ringed on Nov. 20th by MJcd, MJc and JGS.

296 Nuthatch

- M Inner London: Two pairs resident in Holland Park (EPB), both bred as did one pair in Kensington Gardens (RWH). The number of young reared is not known.

298 Tree Creeper

- M Inner London: Holland Park, one on Oct. 2nd remained until Dec. 31st (EPB, H). Kensington Gardens, two on Oct. 14th (CHH, CHFP). Regent's Park, one with Long-tailed Tits on Nov. 2nd (EHW). All these records may well have been connected with the unusual movements of the last named species.

299 Wren

The Cripplegate area of Inner London again provided records of up to seven birds from Oct. 3rd to Dec. 7th.

301 Mistle Thrush

One at Addington, Surrey, on Mar. 5th was singing in flight at *c.* 80 feet (ADB).

302 Fieldfare

One was seen at Rye Meads S.F., Herts., on June 11th (EJS).

303 Song Thrush

A juvenile ringed at Beddington S.F., Surrey, on July 31st, 1957, was recovered at St. Gildas des Bois, Loire Atlantique, France, on Dec. 1st, 1957.

304 Redwing

In spite of a comparatively mild winter, exceptionally common in Inner London from January to mid-March with *c.* 80 present in seven localities on Jan. 13th and *c.* 50 in three Royal Parks alone on Feb. 11th. Heavy broad front passage was heard on the nights of Feb. 27th/28th, 28th/29th and 29th/30th, the localities involved lying between Mill Hill, Middx., and South Croydon, Surrey.

An adult ringed at Havering, Essex, on Dec. 12th, 1959, was recovered at Möklirta, Västmarland, Sweden, on Nov. 4th, 1960.

307 Ring Ouzel

M Ponders End S.F., a cock on Oct. 10th (BSMs). Stanwell Moor, one on Apr. 4th (MC).

S Beddington S.F., one on Apr. 10th, two cocks and a hen from the 11th to 21st (BRS).

311 Wheatear

Unusually prominent on Apr. 7th, 8th and 9th, including 48 between Addington and Titsey Hills, Surrey, on the first date (RLR). On Apr. 7th and 8th both Sandwich Bay and Dungeness received their first sizeable influxes of the spring, but surprisingly Wheatears were not obvious participants at either observatory (see *Bird Migration*, 1 : 196-198).

317 Stonechat

No records have been received for June, July or August.

318 Whinchat

As a breeding bird, now extremely scarce away from the Lea Valley, Essex/Herts., and the Perry Oaks/Staines area, Middx.; other isolated records as follows:

E* Rainham Marsh, at least two pairs bred successfully (JHB, SWLS).

H Croxley Moor, one pair probably bred (JDM).

M Brent Res., one pair bred, only one of the young fledging successfully (LAB).

K Swanscombe, one pair bred successfully and another unmated cock was present in the summer (RJF).

320 Redstart

At least 38 and possibly as many as 43 cock-birds singing on territory during the summer; not all found mates but records suggest a figure of 35 pairs as the *minimum* breeding population of the London Area in 1960. Almost half of these were concentrated in Cuffley Great Wood and Broxbourne Woods, Herts., and as in 1959, there were at least nine pairs in Epping Forest, Essex. The population of Richmond Park, Surrey, decreased to four pairs (six in 1959), but overall the species seems to be holding its own in contrast to the last.

One Inner London record even suggests that it may yet reappear in areas to which it has previously been lost; a cock stayed in Holland Park from Apr. 24th to May 20th (EPB).

321 Black Redstart

Viewed against the apparently clear reduction in the numbers of this species in 1959, records for the year under review are surprising. The size of the Inner London population increased, while almost in anticipation of the final onslaught of bull-dozers on the City stronghold, which began in the spring of 1961, other occurrences were widespread with rather more random spring records than usual.

Full details are given.

- E* Dagenham Dock, a pair in June, a juvenile with them on the 7th (KB, ACP). Girling Res., one on Nov. 20th (RFP.) Walthamstow Res., a hen or immature on Oct. 23rd (BSMs).
- E/M* Ponders End, Girling Res. and King George V Res., present from Apr. 29th to Aug. 6th, the records of RB, JCE, JF, BSMs and RFP probably referring to the same pair of birds, which had a nest in a timber yard at the first locality, where a hen was seen carrying food on May 28th and a cock sang subsequently; both adults fed regularly on the reservoir banks, where what may have been one of their young was seen on July 23rd and Aug. 6th.
- M Feltham G.P., a hen on Apr. 12th (JBC). King George VI Res., a hen on Apr. 30th (RJJ, CMV). Poyle G.P., a cock on Apr. 9th (JBC). Inner London: at least twelve cocks were present in the breeding season, with single outliers of the central population at the Angel, Little Trinity Lane and at Battersea (mated, but not seen after June) and *apparently* unmated birds at Golden Lane, Jewin Crescent, Cheapside and Newgate Street; paired birds were present at Aldersgate, Fore Street/Moorfields, Ropemaker Street, Milton Street and Paternoster Row; one brood was seen with each pair save that at Milton Street, but two were seen in Ropemaker Street and three at Paternoster Row; sixteen juveniles were seen in flight; after the breeding season, odd birds were seen in Lambeth and singing on the Senate House in Bloomsbury, while the species was noted frequently round Cripplegate until Oct. 31st, with a final record of an immature at Aldersgate on Dec. 1st (mo).
- K Elmers End S.F., a hen or immature on Jan. 10th and 17th (LK, PM). Littlebrook, one on Sept. 17th (FJH).

- S Barn Elms Res., a hen on Apr. 3rd (PJO). Holmethorpe, a hen on Mar. 31st, one on Nov. 19th (DMB, RLR). Merstham, a hen on Mar. 31st (Ds).

322 Nightingale

From the comments received following the publication of the *L.B.R.* for 1959, it is clear that the summary of records submitted for that year was not a true picture of the Nightingale's status in the London Area. It should be noted that no other summary was possible *from the information received* and in fact a similarly inaccurate statement might be made from the 1960 records.

Taking 1959 and 1960 together, it appears that there has been little change in distribution since the publication of the *Birds of the London Area since 1900*. In 1959, twg found no fewer than 83 in song during a breeding season census in the area of Broxbourne, Hoddesdon and Hertford Heath, Herts., and this completely corrects the impression of scarcity in 1959. Only two records came from Middlesex, however, as follows:—

- M Enfield, one singing in Whitewebbs Park on June 14th and 21st, 1959 (LJJ). Stanmore Common, three on Apr. 30th, 1960 (EHW).

327 Grasshopper Warbler

It appears that the unusually high numbers of this species recorded in 1959 did not return; in Surrey, however, 23 singing birds were noted at six localities. Two exceptional records are given in full.

- M Brent Res., one singing every evening from June 17th to July 9th (PLB, MDK), the first there since 1956.
S Ashted Common, "one continued reeling while it flew 20 or 30 feet" on May 21st (MJC, PRC).

333 Reed Warbler

- M Spout Wood, one trapped on Oct. 29th had a deformed toe and no upper mandible; it had been feeding on elderberries (DGH, DMP).

334 Marsh Warbler

- H Rye Meads S.F., one trapped on July 16th (ECD, TWG, BSN). The wing measurements and formula of this bird were within the range of the species.

337 Sedge Warbler

- K Ruxley G.P., one on Mar. 26th (JMC, FJH); the earliest on record for the London Area.

338 Aquatic Warbler

- H Hilfield Park Res., one on Aug. 14th and 15th (TWG, BLS, MV).

343 Blackcap

Two winter records and one of breeding in Inner London are given.

- M West Ruislip, a cock on Nov. 5th (IGJ). Islington, a cock on Jan. 2nd and 3rd (RWG). Inner London: Holland Park, present from Apr. 23rd, with three cocks singing on May 1st and two pairs staying to breed, one successfully, with fledged young on June 20th (EPB).

347 Whitethroat

- M Inner London: Holland Park, single birds from Apr. 23rd to June 2nd, seen carrying food on the latter date (EPB, RBR, BR). Old Ford, near Bethnal Green and Stratford, one pair probably nested and one or two other cocks were singing during the breeding season (JHB); this locality is only three quarters of a mile from the Inner London boundary.

348 Lesser Whitethroat

More records have been received than usual, with the species being seen in twenty-two possible breeding localities; observers are asked to increase their attention to this species so that its true status in the London Area can be defined. Passage was marked in Inner London, with no less than 12 different birds in Regent's Park during the year (DIMW).

349 Willow Warbler

- M Inner London: Holland Park, "young birds" were seen on June 5th, following records of one to three from Apr. 29th (EPB, RBR). Strong passage evident in Inner London through August, with at least 100 different birds occurring in Regent's Park and over 30 passing through the Lambeth Palace Gardens (DIMW, GHG).

356 Chiffchaff

Winter records from November to February are given.

- H Cheshunt, one on Feb. 23rd (JW).
 M Brent Res., one on Nov. 8th (EHW). Perry Oaks S.F., three or four present from Nov. 26th (probably present earlier) to the end of the year (JBC, PRC, REE, DMP). Spout Wood, single birds on Feb. 28th (BEC) and Nov. 15th (EAB).
 S Beddington S.F., one on Feb. 21st, three on Feb. 28th (BRs). Leatherhead Watercress Beds, one from Dec. 12th, 1959, to Mar. 26th was trapped on Jan. 24th; it showed the characters of a northern form but definite identification was not possible (MJC).

357 Wood Warbler

Although this species was recorded singing in fourteen localities, three more than in 1959, only one nest, eventually robbed by a natural predator, was found (at Chelsham, Surrey) and its status as a breeding bird is clearly insecure.

360 Yellow-browed Warbler

A simultaneous fall of this species onto four East-coast and two Irish

Sea observatories on Sept. 27th/28th was reflected by one clearly related inland record, the second for the London Area, at Reigate, Surrey, where a single bird was seen by Mrs. J. Cordero in a garden, full of other migrants, on Sept. 28th (see also *Bird Migration*, 1 : 226 and *B.B.*, 54 : 193).

365 Firecrest

M Mill Hill, one in Scratch Wood on Jan. 2nd (EHW).

373 Meadow Pipit

The spring movements were well observed and heavy passage occurred in the second half of March and early April; first noted in the Lea Valley on Mar. 19th, at least 200 arrived at King George V Res., Middx., on the 26th and on the 27th, migrant parties of up to 160 were seen at several localities north of the Thames, while at Beddington S.F., Surrey, "a cautious estimate" put the number of birds present at *c.* 2000; after a lull on the 28th and 29th, passage resumed on the 30th until at least Apr. 9th, records from Romford S.F., Essex, suggesting a peak there on the 3rd. The flight directions of the birds varied from N.W. to N.E.

Details of autumn movements can be found on p. 61-65.

376 Tree Pipit

Quite prominent in the early stages of the London Migration Watch; details are given on p. 61-63, 66.

379 Rock and Water Pipit

None were recorded before Mar. 1st, thereafter frequent spring observations of up to five birds at ten localities until Apr. 20th; the first autumn birds were seen on Sept. 25th with records of up to four birds again frequent at thirteen localities until Nov. 26th; thereafter only one record away from the Thames marshes, Kent, where small numbers were present, except at Swanscombe where up to 40 were seen in December.

At least nine of the spring records referred to birds possessing the characters of *spinoletta*, but the descriptions received of several indeterminate birds point to the difficulty of separating many individuals of this species complex and the splitting of records under race is now considered unwise by the Records Committee.

Detailed analysis of the spring records shows that the pattern of occurrences then fits closely to that of the Meadow Pipit movements described above and in the autumn, Rock Pipits were thrice *seen* in migration flight.

380(b) White Wagtail

Spring records throughout the London Area from Mar. 6th to May 22nd, an unusually long period of passage with maximum numbers, *c.* 20 scattered along the Lea Valley reservoirs on Apr. 30th (RB); as

usual few identified in autumn with only four records between Aug. 20th and Oct. 11th.

381 Grey Wagtail

Although in total records for the breeding season suggest that only one additional pair was present in the London Area compared with 1959, the number of pairs located in Surrey rose from seven to ten; this may be better evidence of a change in the bird's status in summer than the total comparison. The second record of breeding in the City of London follows the numerous autumn and winter records there in 1959.

- M Inner London: Whitechapel, a pair reared two broods on a brewery and are believed to have stayed through the winter to breed again in 1961 (per RPC).

382 Yellow Wagtail

At Old Ford, near Bethnal Green and Stratford, Essex, two pairs nested successfully (JHB); this constitutes the nearest breeding record to Inner London for many years.

Four winter records, involving at least four birds; fuller details of the Beddington S.F. occurrences can be found in *B.B.*, 53 : 226 and 54 : 208.

- M Brent Res., a hen or immature on Nov. 26th (EHW).
 K Petts Wood, one on Dec. 27th (JMC).
 S Beddington S.F., one "brown and white" variant from Nov. 29th, 1959, was joined by an adult cock *flavissima* in January; both were seen on Feb. 14th, one staying until Mar. 5th; another cock *flavissima* from Nov. 27th to Mar. 26th, 1961 (BRs).
 Eight variant birds were recorded and a dozen others resembling the Blue-headed Wagtail (*m.f. flava*) were seen at six localities, of these a pair at Walthamstow Res., Essex, from Apr. 30th to July 6th was accompanied by "a fledgling" on the latter date (RB).

383 Waxwing

- H Stanstead Abbots, four on Feb. 26th (LLE).
 M Queen Mary Res., one on Jan. 17th (PRC, REE, AQ). Staines, one from Feb. 14th to Mar. 13th (PRC, SG, DMP, JRP).
 K Green St. Green, present from Jan. 15th to Feb. 18th with up to seven until the latter date, when two flocks were seen totalling c. 40 birds; none thereafter, suggesting a mass departure (JMC, FJH, PMW). Petts Wood, four on Feb. 6th (JMC). Sidcup, one on Mar. 19th (JMC). Orpington, two on Jan. 15th (JMC) and seven on Feb. 15th (EMS).
 S Banstead, one on Christmas Day (IBM).

384 Great Grey Shrike

- E Chigwell, one on Oct. 29th and 30th (DWA, MGB).
 H Broxbourne S.F., one on Nov. 20th (JW).
 K Swanscombe, one on Dec. 26th (JC, RPC).

387 Woodchat Shrike

S Addington, one on May 13th (ADB, DS, RNFS).

388 Red-backed Shrike

No records were received for Essex, although outside the London Area in that county, there was "a considerable increase" in the breeding population; elsewhere in the London Area, at least twenty pairs were present during the breeding season and although it did not reappear in some 1959 breeding localities, there is no evidence of a further decrease; nevertheless the total population is only a third of what it was in 1952.

All records or comments are given.

- H Goose Green, near Hoddesdon, two pairs bred (JHB, TWG, EHW). Hertford Heath, one pair probably bred (TWG). Hoddesdon, a cock on July 17th (ECD). Old Parkbury, a hen on June 6th (EHW).
- H/M East Barnet S.F., an immature (at a former breeding locality) on Aug. 17th (FJL, RFP).
- M Eastcote, a hen and one or two young on July 16th (GCG). Grange Park, two pairs with young in August (BSMs). Mill Hill, a cock on July 31st (EHW). Ruislip, three pairs present in June, but breeding success unknown (MC, BPP). Winchmore Hill, one pair with young in August (BSMs).
- K Northfleet, one on May 14th (RJF).
- S Ashted Common, one pair bred (MJC, DAE, CMJ). Banstead Downs, a pair on May 18th and a cock on July 27th and 28th (DAE, ADP). Berrylands, near Surbiton, one pair present for the third year bred, rearing two young (SG, WRI, *et al.*). Brooklands Aerodrome, a cock and a hen, noted as "on passage," on May 30th (ARL). Croydon Airport, a pair on June 16th (KDGM). Farthing Down, near Coulsdon, one pair bred (RPC). Fetcham Downs, a pair on Aug. 7th (FB). Reigate Heath, one pair throughout May and June (KF). Sanderstead, a cock and a juvenile on Aug. 18th (PFSC). Thames Ditton Common, near Esher, one pair present in July (PJO). Wallington, one on Aug. 27th (KDGM). Walton Heath, a cock on May 10th (DBP). West Ewell, a pair in May, but not subsequently (WDF). At another area in Surrey, four pairs bred successfully; the exact locality and the names of observers are being withheld so that this new group of birds may have every chance to establish itself.

389 Starling

A hen ringed as a juvenile at Dukhovishihina (!), near Smolensk, U.S.S.R., on May 5th, 1959, was trapped at Selsdon, Surrey, on Feb. 7th. Two new roost-sites were noted in Inner London, small numbers being seen on the clock tower of St. Pancras Hotel in November and December (EHW) and on the Warldorf Hotel and Strand Theatre on Jan. 29th (sc).

391 Hawfinch

More systematic observation of this often hidden species is needed

before any general comment can be made on its current status in the London Area.

Inner London records only are given.

- M Holland Park, one on Apr. 29th and May 1st (EPB, RB). Regent's Park, single adults on Jan. 16th and Sept. 13th, a juvenile on June 16th (DIMW, EHW).

392 Greenfinch

The use of hop manure on the extension to the Peter Pan enclosure in Kensington Gardens, Inner London, attracted at least 50 during latter half of January and early February, maximum *c.* 75 on Jan. 18th (CHH, AP, CHFP, DIMW). These numbers are by far the largest recorded in Inner London since records began, but there are no other reports from the built-up area to suggest that, as with the Linnet, they came in as part of a general influx; Greenfinches were, however, prominent in Essex at this period (see *E.B.R.*, 1960 : 39).

393 Goldfinch

Present on the Cripplegate bombed sites, Inner London, from Jan. 15th to Apr. 19th, with maximum *c.* 25 on Apr. 13th and other records point to the continued ability of this species to find even the smallest patch of rough ground with seed plants in the built-up areas of London.

394 Siskin

A close comparison of January records with those for December 1959, show that the mid-winter population of this species' main haunts in the London Area for 1959/60 was between *c.* 550 and *c.* 600 birds. Presumably connected with the large influx of other finches into Inner London in late January were two records of this species, single birds being seen in Bloomsbury on Feb. 8th (EHW) and in Battersea Park on Feb. 11th (DIMW).

Following a noticeable influx from September onwards throughout eastern Britain, noted in *Bird Migration*, 1 : 221 to 223, Siskins were later prominent in migration flight over London; details of this through passage are given on p. 62-66. In contrast numbers in the area in December were apparently very low, the records submitted accounting for no more than *c.* 100.

395 Linnet

Following several records of up to 65 flying to between S.W. and N.W. from Jan. 10th to Jan. 14th, there was an unprecedented invasion of Inner London by this species. Comparatively large numbers were seen in four localities in late January, but by Feb. 11th there were flocks of no less than *c.* 220 and 213 in Battersea and Regent's Park respectively (DIMW) and some of these lingered on into March, with *c.* 75 at Battersea Park on the 8th and up to 40 in Regent's Park throughout the month; at the latter locality records in April are open

to confusion with migrant occurrences but a few birds stayed as late as Apr. 19th (RWG, JR, DIMW, EHW, RBW). As with the Greenfinch, these records are quite exceptional and there was no repetition of them in early 1961.

One ringed by MJC at Epsom S.F., Surrey, in January, 1959, was recovered a year later in Beurlay, Charente Maritime, France.

396 Twite

Four definite records, more than in any previous year.

E* King George V Res., one on Jan. 16th was watched feeding and then *flew off high* to S.W. (BSMs, FR).

H Rye Meads S.F., two on Oct. 28th and 29th (TWG, BSMs, BSN).

M Queen Mary Res., one on Nov. 5th (AQ).

S Farleigh, four on Dec. 29th (RNFS).

A small finch giving the call-note of this species flew over PRC during a migration watch at Barn Elms on Oct. 18th, but the Records Committee were unable to accept this record fully without some plumage details.

397 Redpoll

Scattered records between Jan. 9th and 16th from unusual localities include two flying N.W. with Linnets over Barn Elms Res., Surrey, on the 10th and may have been related to the general finch influx at the same period.

A bird of the race *flammea* was clearly identified at King George VI Res., Middx., on Feb. 14th by PRC, REE and BEN. Full field notes and a coloured sketch were examined by the Records Committee.

401 Bullfinch

M Inner London: Holland Park, a pair on Apr. 12th and single birds on Oct. 25th and 26th (RB). Kensington Gardens, one on Feb. 12th (AP). Regent's Park, the pair first seen in 1959 remained throughout the year, successfully rearing at least one and probably more young (DIMW, EHW).

This species was also seen, apparently migrating, in the autumn; details can be found on p. 66.

404 Crossbill

All records are given.

E* Havering, three on July 2nd and 3rd (JEF).

B Iver, eight in Black Park throughout the first half of the year; a juvenile seen on Apr. 24th (RJJ, DMP).

K Westerham, a pair on May 13th (PJO).

S Dulwich, five flying S.W. on Mar. 19th (PJO). Ockham Common, following the breeding success of three pairs nesting just outside the London Area, two parties (one of at least seven immatures and the other of an adult male and at least three immatures) were seen within the L.N.H.S. boundary on June 3rd (BEC, MJC, *et al.*): two on Aug. 1st

(SG). Oxshott Heath, a hen and "a small party heard" on Mar. 12th (SG). Reigate Heath, a pair on Feb. 7th (HWS). Weybridge, five immatures on Aug. 13th (GHG).

407 Chaffinch

Regular observations from Regent's Park and Primrose Hill showed that there were small diurnal movements of this species between Mar. 15th to Apr. 12th; these were paralleled by larger movements noted elsewhere in the London Area between Mar. 24th and Apr. 14th with maxima *c.* 110 moving E. over West Wickham, Kent, between 07.45 and 08.30 hrs. on Mar. 24th and 106 flying N.E. over Brent Res., Middx., between 07.30 and 08.30 hrs. on Apr. 2nd. All the other flight directions noted had an easterly bearing and the records as a whole constitute the best evidence for a spring return of this species to date.

A summary of the autumn movements appears on p. 62-67

408 Brambling

More evenly distributed than in 1959; in January estimates for ten localities north of the Thames gave a minimum population of *c.* 650 and those for seven localities south of the river the equivalent figure of *c.* 280; this species is however commonest between late February and early April and several flocks of more than 300 were seen in late March, including on the 27th a migrant flock of *c.* 360 at Hersham S.F., Surrey, which after a rest of thirty minutes *broke up into small parties* before flying on N.W. (SG).

How many more Bramblings there may be than those actually seen is suggested by the work of the Romford Ringing Station, where this species was present from January to Apr. 9th; there the maximum number was *c.* 60 on Jan. 22nd and there were generally less than 40, but 175 were ringed in the period from what was evidently a circulating population.

409 Yellowhammer

For the second year in succession, two pairs nested successfully in the West Meadow of Ken Wood, Hampstead Heath, Middx., up to six having been recorded from January until early March.

410 Corn Bunting

Even allowing for random observation both in 1959 and 1960, there is enough evidence to show that records for the year under review were unusual in the history of this bird in the London Area. All records are given.

E* Epping Long Green, one cock singing in July (BSN). Fairlop G.P., about six pairs located in breeding season (ACP). Nazeingwood Common, one cock singing in July (BSN). Rainham Marsh, two cocks singing in early May (JHB). Romford S.F., "an unusually high concentration of 30" between Feb. 7th and 13th, three or four cocks

- present in breeding season but still no evidence of breeding (see *Birds of the London Area since 1900*, p. 290), several other records, although apparently none for most of August, September and October (RRS).
- H Berrygrove Wood, a cock first seen on Apr. 28th remained throughout the summer (RP). Hilfield Park Res., a cock in song on Jan. 5th, June 26th and July 8th, but no evidence of a mate or breeding (LAB, EHW). Shenley, a cock singing on July 17th (EHW).
- B Horton, a cock singing on July 2nd (JHB).
- M Brent Res., one on Jan. 6th, two on Mar. 4th and a cock in song in June and July (LAB); these birds are among the nearest to central London ever reported and indicate this species' occasional ability to penetrate suburban areas. Harmondsworth, one pair during the breeding season (DGH). London Airport, Perry Oaks S.F. and Springwell, the population from these areas concentrated at the latter in February and March, maximum *c.* 30 on Mar. 13th (BPP); at least ten cocks were singing during breeding season and at least seven were paired (LAB, DGH). Osterley Park, one pair and a cock singing in May and June (DGH). Queen Mary Res., one on Mar. 6th (BEC, BAM). Sipson, one pair during the breeding season (DGH). Staines Moor, one pair during the breeding season (DGH).
- K Darent Valley, between April and July "still found" at Hone, Horton, Kirby, Eynsford, Brands Hatch, Farningham and Shoreham, but no more than a dozen singing cocks were seen (WIB, JMC, PCT, WGT). Thames Marshes, still present but "decreasing" (WIB), one singing at Swanscombe in April (RJF, HLR).
- S Addington, a cock singing on Apr. 20th (DS). Beddington S.F., present from early March to late May, with maximum numbers of up to 19 in March, decreasing to *c.* 10 by Apr. 13th, after then at least three cocks in song (with other silent birds) up to mid-May; thereafter all left and no evidence of breeding (BRS). Epsom, at the former S.F., three on Mar. 13th, six on Apr. 3rd, a cock singing from Apr. 17th to May 7th and breeding was suspected; on May 4th a presumed hen was flushed from rank vegetation but no nest was found; none present on May 26th or later (MJC, DP, JGS). At the two last localities, this species has previously been "of occasional occurrence only in winter" (per MJC). Sanderstead, five on Oct. 15th (PFSC).
- The records suggest a total of seventeen pairs and 32 singing cocks; compare with *L.B.R.*, 20 : 37, where records for Essex alone gave a minimum figure of 27 pairs, and *E.B.R.*, 1960 : 40.

415 Cirl Bunting

- S Chipstead, recorded for the first time in "nearly 20 years" with records of single birds of both sexes between June 10th and mid-July and again on Dec. 11th (LIC, DBP). Shirley, a cock on Dec. 18th (RGB).

420 Little Bunting

H Hilfield Park Res., a cock on Apr. 20th (BLS).

421 Reed Bunting

This species may well be subject to a change in its ecology; in the last three years and at all seasons it has become the common bunting of arable farmland north of Epping, Essex, and although its breeding localities have been close to small wooded pools in most cases, many of the birds have not seen a reed in years (DIMW); in the year under review similar comments come from Surrey, where records of birds in unusually dry localities early in 1960 were several, whilst three pairs bred in fairly dry grass on Ashted Common (MJC). Observers are requested to take careful note of this species in future.

Once again rather dramatic movements in early spring, the records suggesting peak passage from Mar. 27th to 30th with a diurnal departure of *c.* 20 to N.N.E. from King George VI Res., Middx., at 11.30 hrs. on the latter date (MEN). This species was also seen during the London Migration Watch, even flying over Inner London; details are given on p. 62-63, 67.

The only report linking this bunting to the finch immigrations of late January is a report of *c.* 120 at Brent Res., Middx., on Jan. 29th; the normal population there is *c.* 20 or *c.* 30 (LAB).

423 Snow Bunting

H Rye Meads S.F., a hen on Jan. 23rd (BSMs).

M Brent Res., two on Oct. 22nd (LAB). Queen Mary Res., one on Nov. 13th (BEC).

K Swanscombe, nine on Feb. 6th (KOS, RVW) constitute the largest number recorded in the London Area since 1900.

S Molesey Res., a hen on Jan. 9th (SG).

425 Tree Sparrow

Pending the 1961 survey, no records of breeding areas are published. As in 1959, there were several records for Inner London, over which it is probably a double passage migrant. Of winter flocks, *c.* 300 at Perry Oaks S.F. on Dec. 10th (PRC) was the largest.

Corrections to the London Bird Report, 1959**103 Osprey**

In the section, "The Year," on p. 3, the locality given for the single occurrence of this species is Mill Hill; it was in fact Moor Mill, Herts., as correctly stated on p. 24.

54 Red-crested Pochard

E* Nazeing G.P., the duck was in fact present from Sept. 5th until Nov. 6th (per BLS).

61 Long-tailed Duck

H Hilfield Park Res., the immature noted in December was first seen on the 13th, not the 20th (BLS).

135 Little Ringed Plover

H Following the receipt of further notes from TWG and BLS, it is clear that at least seven, not five, pairs summered at three sites.

188 Red-necked Phalarope

H Rye Meads S.F., the single bird seen in October was last seen on the 27th, not the 25th (per BLS).

211 Kittiwake

H Broxbourne G.P., the date of the adult in January was the 1st, not the 10th (BSN, per BLS).

293 Willow Tit

A Hertfordshire locality given as Northiam is, in fact, Northaw.

320 Redstart

H Cuffley Great Wood, at least 12 pairs were present (EHW); see also p. 43.

322 Nightingale

Several comments were received on the summary of 1959 records; these are included in the statement on this species on p. 44.

382 Yellow Wagtail

A letter received from CMV by PRC contains detailed notes on the cock Ashy-headed Wagtail (*m.f. cinereocapilla*) present at Perry Oaks S.F., Middx.; it is now clear that it was first seen on May 10th and that although it *was* seen to feed young, it was not certainly mated to any hen bird and definitely not to one of any race other than *flavissima*.

“ Seasonal Fluctuations in Numbers of Blackbirds and House Sparrows on a Middlesex Farm, 1954-57 ”

Due to an omission in proof correcting, the histograms showing the fluctuations in numbers of both species were transposed, that on page 62 should have been on page 68 and vice versa.

List of Contributors

The observer concerned in the September record of the Roller was E. E. Green.

Additions to London Bird Reports for previous years**47 Garganey**

S Gatton Park, a pair in eclipse from Aug. 9th to 16th, 1959 (RGP, RLR).

56 Tufted Duck

M Inner London: Battersea Park, two young were reared successfully in 1959 (JR).

57 Pochard

M Inner London: Battersea Park, two young were reared successfully in 1959 (JR).

60 Goldeneye

S Gatton Park, a redhead on Dec. 16th, 1959 (RLR).

103 Osprey

H Cheshunt, one over flooded gravelpits on Sept. 9th, 1958 (BN, per BLS).

125 Corncrake

H Ware, one calling on June 8th, one seen and two heard on the 27th, one on July 5th (TWG, BSN). These records, for 1959, are the first during the breeding season for many years.

135 Little Ringed Plover

At least 13 pairs bred within the London Area in Hertfordshire in 1957 (per BLS); this is three more than reported in the *L.B.R.* for that year.

161 Redshank

Additional breeding season records for 1959:

H St. Margarets, one pair (TWG). Roydon, two pairs (TWG).

165 Greenshank

M Hampton Court Park, one from May 22nd to 25th, 1959 (per EMG).

252 Nightjar

K Bean, a pair present in summer in 1957 and 1958 (WIB).

271 Woodlark

Additional breeding season record for 1959:

H Elbow Lane, one singing in April (TWG).

296 Nuthatch

M Inner London: Battersea Park, one throughout 1959 (JR).

356 Chiffchaff

H Rye Meads S.F., one on Feb. 14th, 1959 (TWG).

392 Greenfinch

M Inner London: Battersea Park, proof of successful breeding obtained for first time in 1959 (JR).

The Gull Roosts of the Lea Valley Reservoirs

By B. S. MEADOWS

Introduction

The wintering of gulls in the Lea valley is a comparatively recent development which commenced during the last part of the 19th century; it was first recorded by Lodge (1901) in which mention is made of his observation of a gathering of 100 Black-headed Gulls near the site of the present Girling reservoir: this constitutes the earliest published record of gulls visiting the Lea valley in three-figure proportions.

The building of the Lockwood and Banbury reservoirs at Walthamstow and of the King George V reservoir near Ponders End (a large water of 420 acres) during the first twenty years of the present century no doubt attracted a rapidly increasing gull population and formed the first beginnings of the present-day roosts. Glegg (1934) stated that he saw one gathering of gulls certainly containing six thousand birds but the flocks at times were said to be much larger. The first real attempt, however, to determine the numbers of birds roosting was organized during the middle of February, 1954, and has been detailed by Homes (1955). It was found that 35/40,000 gulls were roosting in the Lea valley at two main roosts at King George V and Girling reservoirs. The last-named water (of 334 acres) was completed in 1949 and is situated between the King George V and the older Walthamstow group of reservoirs; it accounted for *c.* 5,000 of the above total and was used exclusively by Common (80%) and Herring Gulls (20%). The remaining 30/35,000 birds were roosting at the King George V reservoir and this figure was recorded as being composed of 99% Black-headed Gulls. Subsequently, however, observations by J. L. F. Parslow and later by the writer suggested that the above totals represented a considerable underestimate of the present-day population; thus, for a period of three years from the autumn of 1957, systematic counts of the roost were undertaken to obtain an accurate assessment of the numbers of birds roosting at these reservoirs and to trace their fluctuations at various times of the year.

This paper presents the results of this study.

Method of counting and accuracy of the counts

The first attempt to obtain more information about the roosts started with sample counts of the flight lines to the reservoirs, a system employed by I. C. T. Nisbet and A. E. Vine for estimating the roosting population of gulls on the Wash (Hickling 1960). From these observations I found that over 90% of the gulls generally used two main flight lines before entering the reservoirs, the origin of these two routes being as follows:

- (a) N. to N.E., i.e. from the direction of the Lea and Stort valleys;
- (b) S.E. to E., i.e. from the direction of the Thames Estuary.

Furthermore it was found that, although some birds of all species do arrive on the reservoirs from all directions, there was a tendency for each species of gull to arrive in greater numbers from one direction than from another.

This proved important as it meant that it was possible to assess the roosting population of each species. It was found that over 70% of the Black-headed Gulls normally arrived from the N. to N.E. and up to 80% of the Herring Gulls from the S.E. to E. The arrival directions of Common Gulls varied, the winter population principally from the S.E. to E., although during their spring migration a high percentage of the transient roosting population came in from the N.E. (see also Sage 1960). Up to 85% of Lesser Black-backed Gulls normally arrived from the S.E. to E. and on some occasions during their autumn migration as many as 93% came from the latter direction. These discoveries simplified my task considerably. Backed by the knowledge they gave me and with the assistance of a few other observers, I then undertook the numerous counts of the roosting gulls detailed in Table I. It was normally possible to count only birds arriving from one flight line and consequently many of the counts were extended over a period of two or three nights.

How accurate are the counts obtained by this system? The difficulties of gull counting are well known and it is equally difficult to assess the inevitable margin of error. In this case counts of up to 10,000 birds should be within a limit of $\pm 5\%$. Five figure populations are more approximate.

TABLE I
MONTHLY POPULATION OF ROOSTING GULLS IN LEA VALLEY*
1957-60

All acceptable counts obtained during the period of the study are set out below day and year against the respective calendar month. On some dates figures for certain species are not available, but this does not indicate that they were absent. The count for Jan. 25/26th, 1958, was undertaken by J. L. F. Parslow (see *L.B.R.*, 23: 30).

January		1/2.60	11/12.59	16/17.60	20/22.59	25/26.58
Black-headed Gull ... ..	...	55,000	62,000	56,000	57,000	51,000
Herring Gull ... ..	...	11,200	12,200	14,500	13,700	15,000
Common Gull ... ..	...	7,600	9,050	14,000	11,500	12,700
Great Black-backed Gull ...	...	250	284	200	280	250
Lesser Black-backed Gull ...	...	250	210	210	120	220
February			6/7.60	7/8.59	19/20.60	21.59
Black-headed Gull ... ..	...	...	49,000	54,000	43,000	48,000
Herring Gull ... ..	...	...	15,600	15,000	15,000	15,500
Common Gull ... ..	...	...	25,000	24,000	32,000	31,000
Great Black-backed Gull ...	...	...	190	180	190	185
Lesser Black-backed Gull ...	...	...	210	220	250	235
March		5.60	8/9.58	11.59	18/19.60	22.59
Black-headed Gull ... ..	...	32,000	33,000	—	18,000	21,000
Herring Gull ... ..	...	7,000	6,500	7,900	1,800	4,700
Common Gull ... ..	...	38,000	35,000	23,000	20,000	14,000
Great Black-backed Gull ...	...	170	180	194	53	60
Lesser Black-backed Gull ...	...	415	270	350	850	402
April			2.60	7.59	21.59	23.60
Black-headed Gull ... ..	...	...	750	1,200	425	65
Herring Gull ... ..	...	...	200	180	50	48
Common Gull ... ..	...	...	2,450	2,200	308	220
Great Black-backed Gull ...	...	...	25	20	4	3
Lesser Black-backed Gull ...	...	...	670	420	95	120

May, June and July

All five species of gull came to the roosts at times during these months although the numbers were negligible and are not considered worthy of analysis. The most numerous species was normally the Lesser Black-backed Gull, although the numbers recorded in each year were very variable; for example only 32 were roosting on July 23rd, 1959, but 470 were present on July 13th, 1960. Numbers of Black-headed and Common Gulls occasionally reach three-figures during the second half of July.

August		<i>5.57</i>	<i>17.58</i>	<i>17.60</i>	<i>20.59</i>	<i>24.60</i>	<i>25.58</i>	<i>25.59</i>	<i>31.60</i>
Black-headed Gull ...	—	794	574	1,100	905	1,200	1,285	950	
Herring Gull ...	—	120	100	191	150	138	125	150	
Common Gull ...	—	150	179	180	200	220	240	235	
Great Black-backed Gull	—	7	2	5	8	10	8	10	
Lesser Black-backed Gull	450	2,200	2,190	4,700	2,320	4,500	7,500	3,300	
September		<i>1.58</i>	<i>6.60</i>	<i>17.58</i>	<i>17.59</i>	<i>21.60</i>	<i>25.60</i>	<i>29.59</i>	
Black-headed Gull ...	1,250	800	1,300	1,300	—	1,200	—	—	
Herring Gull ...	180	260	190	230	—	300	—	—	
Common Gull ...	300	270	320	325	—	530	—	380	
Great Black-backed Gull	12	9	17	11	—	12	—	—	
Lesser Black-backed Gull	8,000	2,800	7,500	7,000	2,850	3,260	5,600		
October		<i>7.58</i>	<i>8/9.60</i>	<i>14.59</i>	<i>18.58</i>	<i>19.57</i>	<i>24.60</i>	<i>31.59</i>	
Black-headed Gull ...	4,800	2,550	3,600	5,030	—	8,750	—	—	
Herring Gull ...	535	420	650	695	—	700	—	—	
Common Gull ...	950	600	800	1,200	—	930	—	1,800	
Great Black-backed Gull	25	14	44	—	—	39	—	56	
Lesser Black-backed Gull	1,500	4,200	3,900	1,400	1,000	4,000	2,150		
November		<i>1.58</i>	<i>3.57</i>	<i>5/6.60</i>	<i>7.59</i>	<i>20/21.58</i>	<i>27.60</i>	<i>28.59</i>	
Black-headed Gull ...	11,000	—	10,700	16,000	24,500	22,000	17,000		
Herring Gull ...	1,200	—	1,150	3,800	3,000	5,650	4,000		
Common Gull ...	3,000	—	1,700	4,400	4,800	4,200	5,000		
Great Black-backed Gull	43	—	31	70	62	50	70		
Lesser Black-backed Gull	785	1,000	3,500	1,500	400	2,800	3,500		
December	<i>4/5.59</i>	<i>6.58</i>	<i>12.59</i>	<i>13.58</i>	<i>16/18.60</i>	<i>19/20.59</i>	<i>20.58</i>	<i>28/9.60</i>	
Blk-headed Gull	25,000	43,000	—	—	45,000	44,000	70,000	63,000	
Herring Gull ...	5,000	6,250	7,120	13,000	7,000	10,900	—	10,500	
Common Gull ..	5,000	5,300	5,200	—	6,000	6,600	6,600	7,000	
Great B.-b. Gull	80	88	105	125	70	169	169	95	
Lesser B.-b. Gull	310	120	250	130	720	250	250	500	

* The roosting population is located on the two largest waters in the Lea valley, namely the Girling and King George V reservoirs. J. Fitzpatrick has informed me that no roosts have been formed on any of the Walthamstow reservoirs.

Discussion

Consideration of the results of this study as given in Table 1 shows that all five species of gull occurring commonly in the Lea valley are winter visitors and double passage-migrants, although the Black-headed, Herring and Great Black-backed Gulls are essentially winter visitors, while the Common Gull is most abundant during the spring passage (see also Sage, 1960) and the numbers of the Lesser Black-backed Gull are greatest during the autumn.

The results also show that the numbers of gulls now roosting during the winter are considerably larger than the previous estimate made in 1954 (see Homes, 1955). An average of all the counts obtained from November

to February in 1958, 1959 and 1960 gives an approximate winter population of 53,000 birds, consisting of *c.* 41,000 Black-headed Gulls, *c.* 9,500 Herring Gulls and *c.* 10,700 Common Gulls. This suggests that either there has been an increase in the population by one third or that the figures published by R. C. Homes were a considerable under-estimate. However it is known that the 1954 count was made during a complete coverage of the roost and I have found no reason to doubt that the count was a reasonable estimate. Indeed there is much evidence to support the view that a genuine increase in the population of the gull roosts has taken place during the four intervening winters. This evidence can be summarized as follows:

(a) There has been a marked increase in the numbers of Common and Herring Gulls in the Wash (see Hickling, 1960), from where the birds which arrive in the Lea valley are considered to have originated or subsequently reach while on migration: Rowberry (1933) and Sage (1960).

(b) The habit of gulls visiting inland localities in England and Wales in increasing numbers is generally accepted.

(c) The rapid increase in the numbers of Lesser Black-backed Gulls visiting the Lea valley during recent years shows how a gull population can increase in size over a very short period. This species of gull became regular in the Lea valley during the period of autumn migration, over a quarter of a century ago; however, even in the immediate post-war years flocks exceeding 300 birds were rarely recorded and outside the period of autumn migration it was apparently exceptional for this species to be seen in the Lea valley in double figures. Then, from 1949 onwards the numbers increased rapidly and by 1953 flocks of over 1,000 birds were roosting regularly in the Lea valley during the autumn migration. As shown in Table 1 it is now not exceptional for the numbers to exceed 7,000 individuals. During the early fifties spring-passage became more marked although the numbers of birds involved remained comparatively small and until the winter of 1954/5, a winter population was almost non-existent. However, following the autumn of 1954 rather more birds than had previously been recorded remained after the bulk of the population had passed through in the second half of October. Thus during the winter period of 1954/5, a sizeable winter population was present on the reservoirs for the first time. This trend has been obvious in all subsequent winters.*

(d) The Great Black-backed Gull did not figure in the 1954 count although this species was wintering in three-figure proportions during the period of my study, suggesting that this is also a more recent development.

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* There were 500 birds coming to the roost in January, 1961.

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Four Million Birds ?

By A. GIBBS and D. I. M. WALLACE

Introduction

THE idea of a London Migration Watch was put forward almost simultaneously by A. Gibbs and D. I. M. Wallace at a meeting of the Research Sub-Committee of the Ornithological Section early in 1960. Designed to record diurnal migration in more detail than ever before, it received immediate support from the members of the Committee and later the Migration Research Officer of the B.T.O. A letter concerning the watch was published in *Bird Migration* in August, 1960, asking all observers in the area of London to join members of the Ornithological Section in a series of daily watches from September 24th to November 13th. It was unfortunate that this brought only one response from outside the London Area, but following a briefing lecture held at Keppel Street on September 20th, the organizers were left in no doubt of the enthusiasm of their fellow members. It was hoped that all observers would attempt at least a half-hour watch on every weekday and one of three hours on Saturdays and Sundays. During these periods they were to count all diurnal migrants across a given front taking note as they did of weather conditions and other factors affecting the passage of birds. By and large the forty odd observers who took part in the watch throughout the London Area followed the instructions circulated closely and contact between them was maintained by phone call, letter and by summaries included in the sectional bulletin.

The London Migration Watch was an unique experiment and there follow a narrative account of the movements observed, remarks on certain species' occurrences where these were unusual or more fully observed than hitherto and a preliminary quantitative analysis of the diurnal migration between September 24th and November 13th.

The Watch Day by Day

The Watch was lucky in its first day, for after some haze the morning sky of September 24th was full of birds going south into a light wind; Swallows and Meadow Pipits were the commonest, but the most interesting were several Tree Pipits and the most surprising two Wigeon flying west over Regent's Park. On the 25th, the wind again light had reversed to variable from the north. The birds were also confused; some appeared to be going back and no standard direction was noted, but the number of species moving was at least fifteen, including Skylarks, all the common Hirundines, Yellow and Grey Wagtails, Meadow and Tree Pipits, Redpolls and noticeably Lesser Blackbacked Gulls. On the 26th, the wind was from the north-east; the numbers of migrants dropped with no general movements except in the Lea Valley where Swallows were passing and four Little Stints arrived on King George V Res. at 07.30 hrs. As by-products

of the migration watch, several notes of unusually high numbers of Blue Tit were received on this day. On the 27th the wind was easterly again, but the traditional "bad breeze" of former years did *not* obscure movement; there was a revival of hirundine and pipit passage, the birds tending to go south-east rather than into wind thus not being completely deflected. On the 28th with a stronger east wind, some individual records proved noteworthy; single Sparrow Hawk and Turtle Dove flew north-west over Inner London, many gulls were scattered across the London Area and a party of thirty "comic" terns flew south over King George V Res. On the 29th the weather was as much against the watchers as the migrants: frontal rain pelted down but by this time observers were beginning to realize that apparently in contrast to previous years, there were birds moving *every day* and so a few kept on, one to be rewarded by a southward movement of *c.* 2000 House Martins ahead of a rain belt near Leatherhead another by an unidentified goose over Sanderstead and A. Gibbs saw a Little Gull fly west at Kew. On the 30th, with low cloud and the wind still easterly, hirundines had apparently halted to mass throughout the area but rather surprisingly a few Skylarks and Chaffinches were moving to the north or north-west, especially in the Lea Valley. On this day a Kittiwake flying east over Selhurst was the first really unusual bird of the watch.

October began with much stronger movements on the 1st and 2nd. With the wind mainly north-east on both days, at last thirty species were moving, including Kestrels, Lapwings, Lesser Black-backed Gulls, Skylarks, all the common hirundines, Jays (a party of 12 flying north-west over Weybridge), the first real number of thrushes (including a Ring Ouzel over Primrose Hill), a few Tree Pipits, more *alba* Wagtails and plenty of finches, notably Linnets and Chaffinches and even such unusual migrants as Yellow and Reed Buntings. At West Wickham a small number of Corn Buntings were seen apparently migrating, but it is more likely that they were part of a local movement started by the general activity. A party of thirteen Long-tailed Tits flew south over the rooftops of Fulham on this day, further evidence of extraordinary migration over London. By the morning of October 3rd, the wind had backed to the south; the effect of this was dramatic. A peak of hirundine passage was recorded, notably of Sand Martins; Song Thrushes and Redwings appeared in numbers for the first time and Chaffinches were heading west in no uncertain fashion. October 4th brought mist and south-easterly wind and with visibility as low as 300 yards in some places, observation was more difficult. Hirundines were the only widespread migrants seen. On October 5th, several watches were spoilt by varying local weather conditions, but it was yet another peak day for hirundines, with House Martins very common, outnumbering Swallows for only the second time, and Meadow Pipits. On October 6th the weather again obscured much, but several watchers reported numbers of Greenfinches for the first time and three Curlew flew south-east over Weybridge. On October 7th the numbers were generally low, but Siskins and Reed Buntings were seen over Inner London.

On October 8th, Lapwings and Skylarks were quite prominent, but there

was other evidence suggesting a lull, although coasting movements were recorded on the East Coast on this day. The Lea Valley had a heavy rainfall on October 9th, but elsewhere species as different as Jackdaws and Cormorants were seen on the move and Blackbirds had clearly come in overnight. The morning of October 10th was again depressing, but Skylarks were seen braving the constant rain and Ring Ouzels were present at Ponders End. For the second day, Cormorants were again seen flying high to the west, this time over Weybridge. On October 11th the clouds cleared; the wind was swinging between north-west and west. The pace and volume of migration increased immediately but nobody could have expected to see the Black Tern that flew down the Thames at Fulham. Generally it was an exciting morning with the first Starlings and strong finch passage over the entire area, notably of Goldfinch and Siskin. Even so most observers would not have guessed that from that day until October 16th, the numbers of migrants were going to grow daily to a veritable explosion. Through the six days, the wind was from the classic direction, the north-west quarter, and the birds came, across the Channel, Kent and Essex. On October 12th, Redwings were everywhere in the early morning. Tree Sparrows and Siskins were amongst the finches streaming west; one of the few records of high-flying and probably migrant Great Spotted Woodpecker was obtained and parties of Cormorants were twice seen over Fulham. October 13th was remarkable in that a Wheatear behaved as a diurnal migrant, flying north-west over Primrose Hill ! On this day passage rates of a hundred to two hundred birds an hour were commonplace : thirty species were counted. On October 14th high-flying Wood Pigeons had to be accepted as migrants although numbers were small; under them passed Lapwings, Blackheaded Gulls, the first Bramblings and over Ashted, a Shag ! October 15th was the first really big day, the numbers of birds doubling. There was a large scale arrival of gulls, Lapwings were even more prominent (there was peak movement at Dungeness on this day) ; oddities included a Shoveler over Greenwich Park and the last Tree Pipits. Even so watchers could hardly have been prepared for the events of October 16th. This was a dramatic day and descriptive superlatives flowed from the pens of even such experienced watchers of inland migration as Eric Simms, who saw nearly six thousand birds fly north to north-west over Dollis Hill in four and a half hours. Lapwings, Skylarks, Fieldfares, Redwings, Chaffinches and especially Starlings poured north-west into the wind. At one point six hundred Chaffinches and Bramblings "fell" into a part of Epping Forest and by the end of the day no less than forty-one species had been noted as migrants. Curlew, Dunlin, Woodlark, Swallow, House Martin, Long-tailed, Coal and Bearded Tits, Nuthatch, Wheatear, Mistle Thrush, Rock Pipit and Reed Bunting all figured in the final list. The simple fact that the observers could amass such a list (and in this context "list" is not a nasty word !) is one of the astonishing revelations that come from the watch. Previously published summaries of certain species' movements will now have to be revised on the count of October 16th alone. The movements were essentially broadfront. D. I. M. Wallace left Inner London after counting over sixteen hundred birds in ninety minutes on

top of Primrose Hill, travelled north to Harlow seeing birds all the way and then turned east for the Blackwater, with birds on the move throughout Essex, and finally sailing out to sea off Bradwell, where right up to dusk Lapwings and Skylarks were still going north. As on the 15th, this day produced heavy movements over Dungeness.

Observers were allowed by the organizers to stay in bed if it was foggy : it was on October 17th, and almost to a man, the watchers stayed ! One who did not was M. J. Carter at Ashted, who found both Goldfinch and Chaffinch moving or trying to at least ! October 18th brought southerly wind ; Long-tailed Tits were seen moving in several places and in spite of the change of conditions, the common migrants were still under great migratory pressure, especially Wood Pigeons. At the edge of the London Area, T. W. Gladwin reported a movement of some forty Jays over Digswell. Even House Sparrows were determined not to be denied migrant status, and on this day, small parties were seen flying to the north-west *high* over London : there had been a peak in numbers at Dungeness on the 15th. After this day until October 22nd daily movements of between fourteen and twenty-six species occurred, but with mainly east wind, there was little to match the excitements of the 16th. The real interest was in their continuance at all ; for years it had been thought that only a wind from the north-west quarter made diurnal migration easily *visible* over London. This view cannot be upheld. On October 23rd, the wind was from the south-east and rather surprisingly, there appeared to be a return of birds from the north-west, both over London and as far south as Dungeness. The most prominent species were finches, including Siskins. On October 24th with the wind and flight directions unchanged, movements were more pronounced, with Lapwing, Black-headed Gull, Wood Pigeon, Skylark, Meadow Pipit and Brambling all more noticeable than for a week. The wind held to the south-east quarter on October 25th. Carrion Crows and Jackdaws were on the move and with them, Wood Pigeons, many Linnets and only the third Sparrow Hawk of the watch. On October 26th with stronger wind from the south and general rain, only eighteen species were seen by the observers, but among these were two Snipe flying north over Regent's Park. A wind change to the south-west and a break in cloud cover was recorded on October 27th ; larger movements were seen, notably of Starlings, Chaffinches and Bramblings. The western element in the wind had gone on October 28th and numbers were again low, so also on October 29th with variable wind, but Tufted Ducks were moving flying high to the west over Primrose Hill and Weybridge. On October 30th, with the wind swinging between north-west and south-west throughout the London Area, the pace of migration picked up and at least thirty-four species were noted as migrants. Lesser Black-backed and Herring Gulls were prominent. Skylarks passed to the north and north-west, Starlings moved across in light-packed flocks and amongst the migrant finches were Bullfinches. Long-tailed Tits were moving west and a late Yellow Wagtail was seen by B. S. Meadows in the Lea Valley. However the massive immigrations at this time in the previous year were not to be repeated. October 31st was a quiet day and so was November 1st. On November 2nd with almost gale

force wind from the south-west, one might have expected nothing to move, but at least eight species were doing their best ! On November 3rd, with the wind direction unchanged but its strength diminished, Wood Pigeons and Starlings began to pass again and on the next two mornings, up to thirty species were seen. On November 5th, the wind was west to north-west and this change had the classic effect; a peak of Wood Pigeons was recorded with larger numbers of Skylarks and Fieldfares than for several days. Also heading into wind were Meadow Pipits, Starlings (prominent also at Dungeness), finches and both species of sparrow. On November 6th the wind set from the north-west, the size of the movements matched those of October 16th; only twenty-two species were seen in flight, nineteen less than on the previous peak but Wood Pigeons over London were very abundant; Starlings were almost as common, Fieldfares were prominent and oddities included Yellow Bunting and a wild swan. Starlings continued to streak across the morning sky on November 7th. On this day also thirty-eight Long-tailed Tits passed south over King George V Reservoir and two Rock Pipits flew north over St. Paul's Cathedral, a contrast in species and directions typical of visible migration. On November 8th, only Starlings persisted, being most noticed over Ashtead. Next day more species were on the move, but it was a short-lived revival for on November 10th produced records of only three species. To be honest the watchers were also showing signs of strain and in the last few days of the watch, observations were less systematic. Even so on November 13th, no less than twenty-one species were recorded and strong movements of Lesser Black-backed Gulls, Wood Pigeons, Jackdaws, a few thrushes, Starlings and Chaffinches were reported. After this date the London Migration Watch was officially over, but it is known that diurnal passage continued into December, just as the first visible migrants had been noted far back in July.

Movements of certain species

Apart from the summary of the watch above, certain remarks on individual species and their occurrence can be made against the background of existing statements on their status as migrants in the London Area. Lapwings were recorded daily from September 25th to October 3rd, October 6th to 11th, 13th to 16th, and from the 18th to 21st with other intermittent records up to November 10th. Since this species normally makes summer movements as early as June and the autumn passage starts in July, it clearly migrates over the London Area throughout five months ! Lesser Black-backed Gulls were moving on forty-six out of the fifty-one days of the watch; it is already known that the migration of the species starts before the period of the watch and clearly the waters of the London Area are important stages on this gull's journey. Large numbers of Black-headed Gulls were not recorded before mid-October and the mass arrival of wintering birds appeared to be over by the 27th; the build-up in the regular Inner London population in winter occurred during the same period. Wood Pigeons moving or apparently moving were seen on every day except October 17th (fog) and November 10th, but this species under-

takes long roosting flights and no high fast-flying flocks, the characteristic group action of migrants, were recorded before mid-October. They were most prominent on October 24th and 25th and from November 5th to 7th. Those over London were moving mainly west on the latter dates, but apparently no birds were seen in Essex or over Dungeness at this time so that their origin remains in question. Skylarks were, as expected, almost daily migrants, but the majority had passed before the fourth week of October, with only a small revival on November 5th and 6th; this was in accordance with past experience. The passage of hirundines, better perhaps the departure, was remarkably heavy between September 29th and October 6th, with Sand Martins remarkably common on the 3rd. The latter species continued to be noted up to October 25th, while House Martins and Swallows were seen until November. Apart from one exceptional movement in the Lea Valley, the watch confirmed that the autumn passage of corvids is but a shadow of the movements recorded in the late nineteenth century. The movements of Long-tailed Tits were exceptional and are laid out in detail on p.40-41. Early Redwings were already in the area by September 24th and records of both diurnal and nocturnal passage of thrushes were almost daily. Heavy movements were noted between October 12th and 16th, on the 29th and 30th with simultaneous passage in Essex, and on November 5th and 6th. Many other coincidental records of nocturnal migrants were obtained with those of Wheatear and Redstart on October 16th presumably caused by the great migratory pressure of that day. Goldcrests passed through until October 29th. The migration of Meadow Pipits has been well-covered above, but the records of Tree Pipits are worthy of careful attention: this species was seen moving on September 24th, 25th, 26th, October 1st, 2nd, 4th, 5th, 7th and 15th. Its published status as a migrant requires revision, not only because of the above records, and it is clearly quite different from that culled from the comparatively few records of grounded birds. *Alba* Wagtails were almost daily migrants but no peaks were noted except on October 15th and 16th. Grey Wagtails, though prominent elsewhere in Britain in the autumn of 1960, were perhaps not so obvious as might have been expected. Only a few birds were seen on September 25th, 26th and 28th and on sixteen dates in October. *Flava* Wagtails were prominent only in late September. The main Starling passage was from October 12th to November 8th, the mass migration of October 16th being rather early especially in comparison with 1959. Against the widespread finch movements throughout eastern Britain, the fantastic daily succession of records over London during the watch is not as surprising as it may seem, but the occurrences of Siskin should be noted. First seen passing over on October 3rd, Siskins were noted again on the 7th and daily from the 11th to 16th, again on the 23rd and finally on November 11th. Passage of Redpolls started later on October 15th but was noted on no less than eleven dates between then and November 11th. Perhaps the most surprising fringilline migrant was the Bullfinch, which was seen in small numbers passing usually north-west on October 6th, 10th, 14th, 18th, 25th, 30th, 31st, November 4th and 5th. Perhaps the Bullfinch should no longer be regarded as "purely sedentary" in the London Area. Throughout the

whole period, Chaffinches were *not* recorded on the move *on only two days*, but Bramblings were common only in the movements of mid-October, from October 24th to 27th, from November 4th to 6th and on the 9th. The movements of buntings showed no pattern, but migrant Reed Buntings were recorded on eight dates, Yellow Hammers on only six ! Tree Sparrows passed between October 1st and November 9th, being most prominent in mid-October. Its case as a passage migrant is now well proven. House Sparrows did their best to prove themselves migrants and at least on October 18th and Nov. 6th, this status cannot be denied them.

How many birds ?

In the preceding sections of this paper, it has been possible to convey the main features of the daily diurnal movements observed during the London Migration Watch and also to point out aspects of certain species' migrations, especially where these are supplementary to previously published statements or where they show cause for adding a species to the list of migrants that pass over London. The task of making a quantitative estimate of the movements remains. This is not so easy and unlike the preceding sections, the calculations necessary were made increasingly inaccurate by every break in the continuity of observations. It also became obvious as analysis proceeded that the lower and less open the area of observation, generally the less visible were the movements overhead. Nevertheless we can do better than hazard a guess for the records of fourteen observers were sufficiently systematic to allow joint analysis. From this it has been possible to estimate the average passage rate over the various watch points during the watch hours set. Expressing this measure as *birds per hour crossing a mile-long front*, it can be shown that the fourteen passage rates averaged for the fifty-one days of the watch varied from 126 to 1124, with eight between 500 and 800. The latter have been taken as the most accurate samples of the movements and it is likely that they are. The eight observers responsible from the actual counts were all experienced and their watches were conducted with care, their locations chosen well. Their records have therefore been summed to establish the average rate of (presumed) broadfront passage over the London Area between September 24th and November 13th. This was 651 birds per hour across a mile-long front. As stated above, the figure can only be quoted for the watching periods of the eight observers. However, there is ample evidence both from their records and those of others that the diurnal movements continued until at least noon on most days, well into the afternoon on several and almost until dusk on one or two. Even so we have taken a daily passage period of only three hours throughout the days of the watch. Further analysis may well change this figure but even using this possibly short *per diem* period in the total summary of all the movements, the estimate of the migrant population moving over London during the watch is of impressive proportions. When the two factors mentioned above (651 birds per mile/hour and three hours of daily passage) are combined with the diameter of the London Area forty miles, the total numbers of diurnal migrants crossing the area can be calculated to be 3,984,120. Separate analysis of the day-long peak movement of October 16th gave a figure for that day of

c. 400,000 birds and therefore to state that about 4,000,000 made a diurnal migration over the London Area between September 24th and November 13th is well within the bounds of possibility. Nor is it the first time that such scales of passage have been quoted for the area; analysis of Skylark movements from October 30th to November 2nd, 1959, suggested a total of 360,000 participants (of one species) in four days alone. What is more, using similarly calculated factors for the four lowest counts of the fourteen fully analysed watches, the final estimate is still well over a million.

. At one time these findings might well have been thought rash and ill-considered, but against the background of recent radar observations this sort of attitude would be an anachronism. Nevertheless the title of this paper was followed by a question mark and until the final detailed analysis is complete, we do not suggest that the total of four million birds should be accepted without some caution.

Finally, the organizers wish to thank not only the few observers mentioned above by name, who made some of the most continuous observations, but also every other member who contributed one or more records to the London Migration Watch. Fuller acknowledgement will be given when the detailed analysis is published.



PLATE 2. NESTLING SAND MARTINS

(photographed by A. C. Parker)

Sand Martin Colonies in the London Area

By B. S. NAU

Summary

The number of Sand Martin colonies within a circle of twenty miles radius is given with details of size for the year 1960. The percentage of occupied burrows in these colonies was found to be 45.5% with a peak of 68% in late June. The distribution of size of colonies in the N. and S. halves of the area were found to be different in 1960, though this was not so in earlier years, and this is explained on the basis of the different geology of the two regions. The population of colonies in the area appears to have been constant over the past sixty years and the mortality rate of colonies is about 6.5% per annum. The oldest colonies were situated in drain pipes and suggestions are put forward to explain this. Sand Martins in the London area exhibit a preference for an easterly aspect for their burrows, with no significant difference in the number of burrows facing N. or S. Some details are given of several colonies which were examined in greater detail and these include mean burrow length and diameter, and the distribution of length of burrows at two colonies.

(1) The aims and methods of the 1960 census

Under the aegis of the Research Sub-committee of the L.N.H.S. Ornithological Section an investigation was made of the breeding status of the Sand Martin within twenty miles of St. Paul's Cathedral. The object of the investigation was to determine the number of breeding colonies and estimate the number of pairs of Sand Martins breeding in this area. In addition it was thought worthwhile to collect information regarding the siting of colonies, details of the position of burrows and the percentage of these which are occupied.

To collect this information a questionnaire was sent to selected observers who had agreed to cover specific areas; the approximate distribution of the species was already known from the past records of the L.N.H.S. and it was therefore possible to cover the important breeding areas without wasting effort covering barren areas. The census was also publicised in a recording circular and a few reports were obtained as a result, though these mostly referred to sites already covered.

About fifty-five completed questionnaires were returned and these brought to light approximately 50 occupied colonies which had a total of about four thousand burrows. For comparison, there are about one hundred and forty-six colonies on record for this area up to but not including the census year.

(2) The percentage occupation of burrows

A major source of error in a census of this kind lies in the necessarily limited number of visits which observers can make to count burrows at colonies, most colonies in the present case being counted once only. It was originally intended that the counts should be synchronized as far as possible to the period immediately prior to incubation, which was judged

to be the latter part of May. However, in 1960 many colonies were not even in use at this time and it was therefore fortunate that most colonies were counted later in the year.

TABLE 1

Arrows trace the history of a single colony, in each case

% burrows occupied	May		June		July	
	early	late	early	late	early	late
90-100		1				
80-90			1			3
70-80	1		1			
60-70		2				1
50-60		1				
40-50		2				1
30-40		1		1		2
20-30			1	1		1
10-20		3				1
0-10	2		1			

The way in which the percentage occupation varied through the breeding season is given in Table 1 and this information is summarised in Fig. 1. For the twenty-eight colony-visits tabulated the mean percentage occupation is found to be 45.5% but there is a strong peak in late June when the percentage occupation rose to 68%.

(3) **Size variation of Sand Martin Colonies**

The data on colony sizes has been tabulated separately for the years up to but not including 1960 (data from L.N.H.S. records and the literature) and for the census year of 1960—Tables 2 and 3. It has been necessary to classify colonies on an arbitrary scale of size which has been devised so that use could be made of the earlier, vaguer data. So that direct comparison is possible, the 1960 data has been presented in the same way; this has the disadvantage of introducing a degree of imprecision but I feel that this is far outweighed by the fact that so much more past data becomes usable.

The scale of sizes employed is as follows:—

A: small (fewer than 25 burrows, used or unused)

B: medium (at least 25 but fewer than 100)

C: large (at least 100 but fewer than 250)

D: very large (at least 250).

It is realized that in making use of past data in this way one is relying to some extent on the scale of values of different observers being similar; however, it is hoped that the large number of observers contributing these records will result in a cancellation of the random errors introduced in this way.

TABLE 2. COLONY SIZES PRIOR TO 1960

<i>Size</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>?</i>	<i>Total No.</i>
Bucks -	1	—	—	—	3	4
Essex -	12	11	2	—	3	28
Herts -	13	9	2	—	2	26
Lond. K. -	2	—	—	—	3	5
Lond. M. -	2	1	—	—	2	5
Lond. S. -	2	—	—	—	—	2
Lond. All -	6	1	—	—	5	12
Middx. -	16	—	—	—	10	26
Surrey -	13	5	1	1	8	28
TOTALS -	70	31	8	1	36	146

TABLE 3. COLONY SIZES IN 1960

<i>Size</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>?</i>	<i>Total No.</i>
Bucks -	—	1	—	—	—	1
Essex -	6	9	3	—	—	18
Herts -	6	5	3	—	—	14
Kent -	1	1	2	3	1	8
Lond. K. -	—	—	—	—	—	—
Lond. M. -	—	—	—	—	—	—
Lond. S. -	—	—	—	—	—	—
Lond. All -	—	—	—	—	—	—
Middx. -	3	—	—	—	—	3
Surrey -	—	1	3	1	—	5
TOTALS -	16	17	11	4	1	49

TABLE 4. COLONY SIZE FOR NORTH AND SOUTH OF THAMES COMPARED

<i>Size</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>?</i>	<i>Total</i>
1960 North	15	15	6	0	0	36
1960 South	1	2	5	4	0	12
< 1960 North	44	21	4	0	20	89
< 1960 South	26	10	4	1	16	57

It is illuminating to consider the records grouped according to whether they refer to the area north of the Thames or to the south of the Thames, these areas being roughly the same size. Table 4 shows the data grouped according to this scheme and in Figs. 2 and 3 the same information has been given in histogram form as percentages of respective totals. Fig. 2 clearly brings out the contrasting distributions of colony-size in the two areas in 1960. In the northern area the tendency is to smaller colonies, and more of them, whereas in the southern area this trend is reversed, with fewer and larger colonies. From the Appendix it can be seen that there were actually more burrows in total in the southern area than in the northern, even though there were but twelve colonies compared with thirty-five in the north.

It will be noticed that it has been assumed that estimates or counts of colony-size relate to apparent rather than to true size, this is an assumption which has been made in view of the lack of any indication from the authors of these past records as to whether or not they appreciate the distinction. It seems probable that in most cases the existence of this distinction has not been realized and therefore the estimates of size will be on the high side.

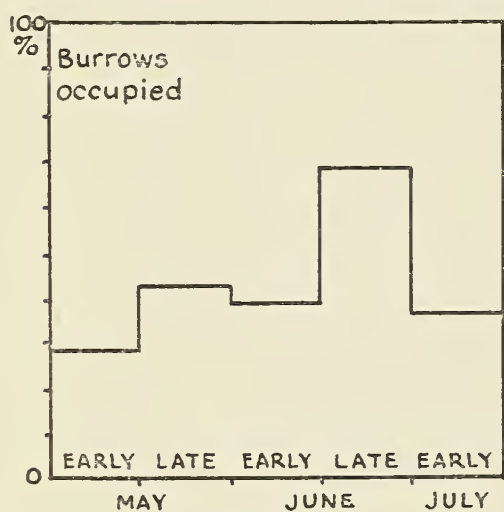


Fig. 1

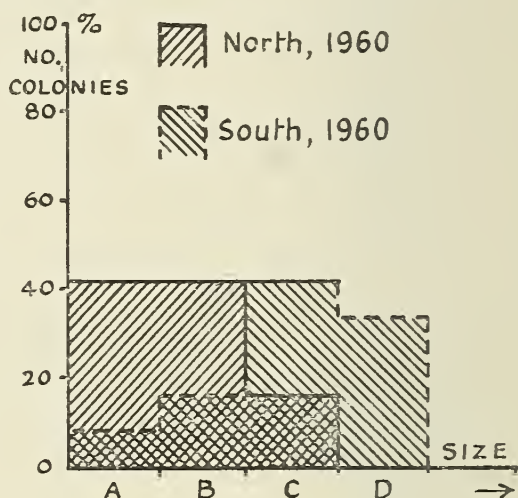


Fig. 2

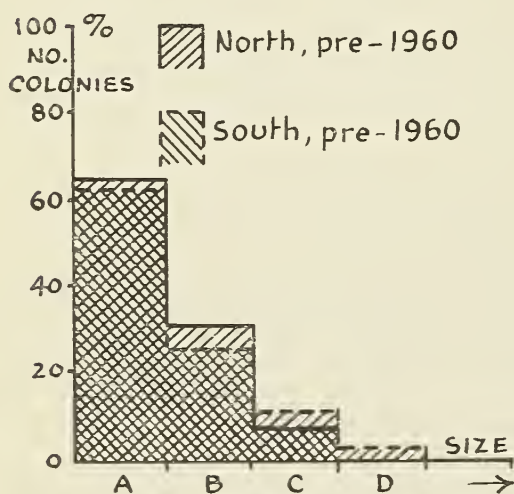


Fig. 3

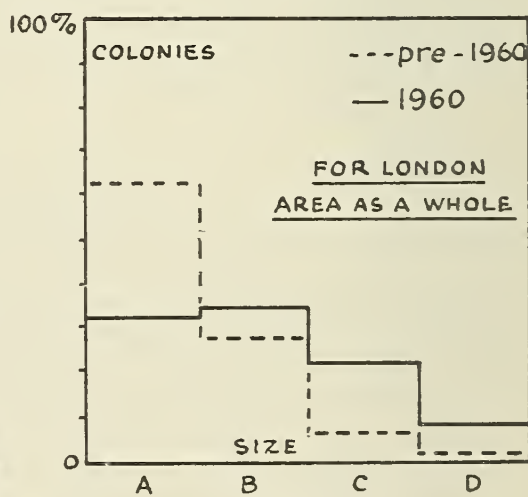


Fig. 4

Fortunately the same reservations do not apply to the 1960 data and this may be accepted at its face value. One point should be mentioned however, namely that in view of the number of counts which gave a figure for the total number of burrows only it was considered desirable to give this figure for all colonies rather than to introduce complications by tabulating both figures, total and occupied numbers.

Referring now to the histogram for the years prior to 1960, Fig. 3, the change in the size distribution is quite apparent and it can be seen that both north and south present similar distributions, in complete contrast with the 1960 situation. In Fig. 4 the information for the whole area in 1960 is plotted in percentage form to facilitate comparison. Here, too, the change in size distribution shows up as a drift towards larger colonies but it should be remembered that the number of colonies reported in 1960 was equal to one third of all those reported previously and it does not necessarily follow that the overall drift to larger colonies has been at the expense of the smaller ones, since it is possible that the overall population could have increased during the last few years, but see section on lifespan of colonies.

The reasons for the disparity between north and south, as well as temporal changes, will be considered in a subsequent section.

From the data arising out of the 1960 census it has been possible to work out mean values of the colony-size for each of the counties which lie partly within the twenty-mile circle, for those parts of these counties within the area. The figures again refer to overall total numbers of burrows, occupied or otherwise, and they are tabulated in Table 5.

TABLE 5. MEAN SIZE OF COLONIES BY COUNTIES

	<i>Mean no. burrows</i>	<i>No. colonies counted</i>
Bucks -	40	1
Essex -	47.5	19
Herts -	54.7	12
Kent -	220	6
Middx. -	16	3
Surrey -	127	7

(4) **Habitat Preference**

In Tables 6 and 7 the information available on habitat preference has been tabulated for the pre-1960 period and for 1960 separately. The headings refer to the kind of site where the colony was found, G.P. being a gravel pit, S.P. a sand pit and C.P. a chalk pit.

In considering Table 7 it should be born in mind that there will have been a bias in the data due to the greater chance of a colony being reported in one of the more usual sites, such as a quarry, as against one in an unusual site like drain pipes, except where this has been in occupation over a period of years. There are two reasons why this should be so; in the first case most quarries were specially searched in the course of the organized census, but the same cannot be said of drainpipes. Secondly, colonies in unusual sites tend to be small, with rare and well known exceptions, so that the

TABLE 6. HABITATS. PRIOR TO 1960

<i>Habitat</i>	<i>G.P.</i>	<i>S.P.</i>	<i>C.P.</i>	<i>Rd/Rly</i>				<i>?</i>	<i>Totals</i>
				<i>cuttings</i>	<i>Claypit</i>	<i>Drains</i>	<i>Misc.</i>		
Bucks -	2	—	—	—	—	—	—	2	4
Essex -	21	—	—	—	—	5	1	1	28
Herts -	21	—	1	—	—	3	—	1	26
Kent -	7	4	3	5	—	—	—	3	22
Lond. K. -	—	2	2	—	—	—	—	1	5
Lond. M. -	1	2	—	—	1	1	—	—	5
Lond. S. -	—	—	—	1	—	1	—	—	2
Middx. -	13	—	1	2	—	6	3	1	26
Surrey -	5	15	1	2	—	3	1	1	28
TOTALS -	70	23	8	10	1	19	5	10	146

TABLE 7. HABITATS 1960, NUMBER OF COLONIES

<i>Habitat</i>	<i>G.P.</i>	<i>S.P.</i>	<i>C.P.</i>	<i>Rd/Rly</i>				<i>?</i>	<i>Totals</i>
				<i>cuttings</i>	<i>Claypits</i>	<i>Drains</i>	<i>Misc.</i>		
Bucks -	1	—	—	—	—	—	—	—	1
Essex -	9	5	4	—	—	1	—	—	19
Herts -	10	1	1	—	—	1(pt)	—	—	12
Kent -	—	4	2	—	—	—	—	—	6
Lond. K. -	—	—	—	—	—	—	—	—	—
Lond. M. -	—	—	—	—	—	—	—	—	—
Lond. S. -	—	—	—	—	—	—	—	—	—
Middx. -	1	—	1	—	—	1	—	—	3
Surrey -	—	7	—	—	—	—	—	—	7
TOTALS -	21	17	8	—	—	3	—	—	48

inherent tendency for small colonies to be overlooked due to the size factor will also be operative. On the other hand it will be shown later that drain pipe colonies tend to be long-lived and as a result of this there will be a much greater chance of such colonies being reported over the course of a number of years, in spite of the low initial probability. This will affect the 1960 data and the pre-1960 data differently and will account for the higher proportion of the pre-1960 sites which were found in less usual sites.

TABLE 8. HABITATS 1960, NUMBERS OF BURROWS (approx.)

<i>Habitat</i>	<i>G.P.</i>	<i>S.P.</i>	<i>C.P.</i>	<i>Drains</i>	<i>Totals</i>
Bucks -	40	—	—	—	40
Essex -	145	146	572	ca 40	903
Herts -	476	28	150	2*	656
Kent -	—	784	538	—	1322
Middx. -	12	—	24	—	48
Surrey -	—	890	—	—	890
TOTALS -	673	1848	1284	54	3859

* denotes that two burrows were part of a G.P. colony

One cannot draw conclusions regarding the preference exhibited by Sand Martins in the choice of their colony site on the basis of the Tables 6 and 7 taken alone, since information is lacking on the relative abundance of the various kinds of site in the London Area and of the proportions of each which are usable. In Table 8, the more detailed data available from the 1960 census has made it possible to tabulate the total number of burrows found in each of the different sites and when this information is taken together with that in Table 7, we obtain the average size of colonies in each kind of habitat and this is given in Table 9.

TABLE 9
THE AVERAGE SIZE OF COLONIES IN DIFFERENT HABITATS

<i>Site of colony</i>	<i>Mean no. burrows</i>
Gravel pits -	32.1
Sand pits -	108.7
Chalk pits -	160.5
Drain pipes -	18*

* denotes very approximate figures due to small number of colonies and only rough counts made

It can be seen that by far the largest colonies were found in chalk pits, followed next by sand pits and finally by gravel pits. The average for drainpipe colonies is scarcely significant in view of the small number of such colonies counted accurately, the largest of all being only estimated in 1960.

In Table 8 it is clearly shown how sand pits, which accounted for only 35% of all the colonies in the Area, nevertheless contributed 48% of the total number of burrows. Furthermore, although more colonies were found in gravel pits than in any other kind of site, there were more burrows found in sand pits or in chalk pits than were found in gravel pits. These facts taken with the geographical distribution of the various geological deposits explain the divergence of the size distributions of colonies in the N. and the S. of the Area.

Table 10 shows how the colonies are distributed among the geological deposits of the London Area—deposits not used by Sand Martins have been omitted.

TABLE 10
DISTRIBUTION OF COLONIES AMONG THE GEOLOGICAL DEPOSITS
OF THE LONDON AREA

<i>Deposit</i>	<i>No. of colonies</i>
Gravel, alluvial -	45
Gravel, glacial -	17
Brickearth - -	4
Bagshot beds - -	4
Lower tertiaries (N)-	8
do. (S) -	27
Lower greensand -	16
TOTAL - -	118

Finally there are the drainpipe colonies which are certainly an important feature of the preference exhibited by Sand Martins in the London Area. Of the pre-1960 colonies there were about 19 in this kind of situation out of the total of 146 colonies and in 1960 there were three recorded out of 48 colonies, not all of the 1960 colonies, however, were different from the earlier ones.

(5) Lifespan of Sand Martin Colonies

The relatively large amount of data brought together in the course of the 1960 census, coupled with that available from the past records makes possible a tentative consideration of the longevity of Sand Martin colonies.

Of the 48 colonies recorded in 1960, some twenty were already known and it has been possible to plot a graph showing the number of colonies which exceeded a given age in 1960 (Fig. 5). In addition, the pre-1960 data has been plotted in Fig. 6, using only those colonies which were extinct before 1960, so that no colonies occur in both figures. With data of this kind there is a much higher probability of colonies being overlooked if they only existed for a short time, a year or two, so the data will have a bias towards a number of short-lived colonies which is less than it should be. On the other hand, the fact that colonies which lasted for a number of years may sometimes have been discovered after a few years' use will tend to bias the data in the opposite direction, increasing the apparent number of short-lived colonies.

It is possible to introduce a degree of order to the information in Figs. 5 and 6 if the following assumptions can be made :—

- (a) that the population has remained more or less constant over the past fifty years, the time-period covered by the data;
- (b) that the colony mortality rate has remained constant over the same period.

If the deductions to be made from these assumptions prove to be widely different from the experimental data then it may be assumed that one or both assumptions is in error. In fact it will now be shown that the deductions lead to a degree of correlation with experiment that leads one to suspect that the assumptions are not badly in error.

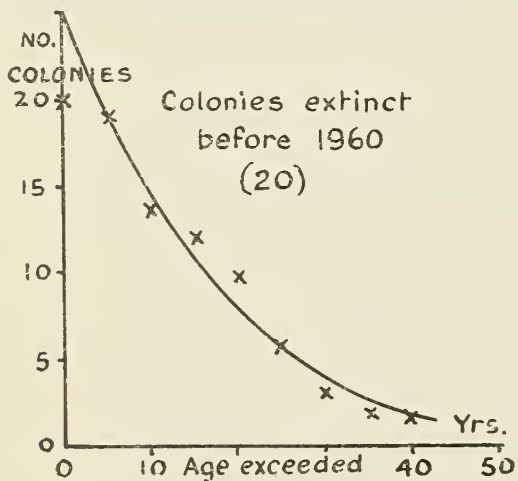


Fig. 5

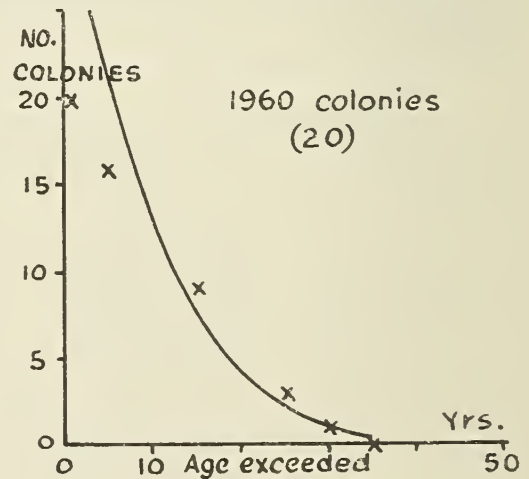


Fig. 6

Denoting the number of colonies of age exceeding y years by N , assumption (b) implies:

$$dN = -AN \cdot dy$$

where dN is the number of colonies dying within a period of dy years, and A is a constant (the mortality rate). Integrating this equation gives the result:

$$N = N_0 \exp(-Ay)$$

where N_0 is the total number of colonies under consideration, i.e. the number of age exceeding nought years. This result was obtained by an argument based on data of the kind in Fig. 5 but with only minor changes of interpretation it applies directly to the data of Fig. 6.

It is now necessary to evaluate the two constants N_0 and A ; this we do first for the 1960 data by selecting two experimental points to which the theoretical formula can be fitted. Taking $N = 14$ and $y = 10$, and $N = 2$, $y = 40$ the values of the constants are $N_0 = 26.9$ and $A = 0.065$. Rounding the value of N_0 to 27, the full line in Fig. 5 is obtained.

Treating the pre-1960 data in a similar way, taking $N = 1$, $y = 30$ and $N = 12$, $y = 10$ we arrive at the following values for the constants: $N_0 = 41.7$ and $A = 0.124$ and these give the full line in Fig. 6.

If the mortality rates of the two cases considered are compared, it will be noticed that the pre-1960 figure is twice that for 1960; this discrepancy can probably be accounted for by the excessive extrapolation necessary in the pre-1960 case in order to obtain the value of N_0 . It should be realized that the pre-1960 data is assumed to be a random sample, it is certainly not a complete set of data, whereas the 1960 data has reasonable pretensions to being a complete set, though with a probable tendency towards under-estimation particularly for colonies of less than about ten years' age.

In conclusion, the agreement of the theory with the 1960 data is such that it seems reasonable to suppose that the original assumptions were correct and that the number of colonies and the mortality rate of colonies have remained appreciably constant in the London Area over the past fifty years or so. The mean mortality rate is 6.5% per annum.

Returning to more general considerations, it is noteworthy that the two oldest colonies still in existence in 1960, and the oldest known from the London Area, are both situated in drain pipes. It is not certain that both have been in use every year but certainly they have both been in fairly regular use over the past forty years. The older of the two, as far as is known, is that situated in drains in the concrete banks of a canal beside the King George V Reservoir at Sewardstone, Essex. The earliest report is for 1918, making it 42 years old in 1960. The other colony is that in the banks of the Grand Union Canal at Harefield, Middx., which has existed since at least 1919. Several points call for comment in connection with this apparently abnormal longevity of drain pipe colonies. Firstly, these drains have been available to the birds for a long period without the disturbance characteristic of colonies in sites where either excavation destroys the site or growth of vegetation renders it unsuitable within quite a short time. Unlike quarry colonies, these do not require the excavation of new holes each season and it would be interesting to be able to compare the rituals of the courtship

and hole-excavation phase of Sand Martins in these colonies with those in more normal ones, where burrow excavation appears to be an important feature of social behaviour (cf. Hickling 1960).

It may be pointed out that both of these drain pipe colonies are conveniently situated from the point of view of having an assured food supply close at hand, since the one is beside a large reservoir and the other is beside a canal with flooded gravel pits a few yards away.

The fact of repeated use of nest burrows carries with it problems which would not normally arise, for the Sand Martin flea (*Ceratophyllus styx*) is a ubiquitous inhabitant of Sand Martin burrows and is known to overwinter in the burrow (Rothschild and Clay, 1952). If then, the same burrows are in use year after year it is easy to imagine that the burrows might soon become infested to an intolerable degree and it might be that in the case of drain pipe colonies this problem is solved by the effect of winter rains causing the burrow to be flushed out by the drainage water, which is their *raison d'être*, between one breeding season and the next. That this effect can be a mixed blessing is shown by the fate of birds in the Sewardstone colony in the wet summer of 1958 when the colony was flooded and numbers of birds were drowned in the nest-holes (F. Riley, pers. comm.).

Another drain pipe colony, which was just over the boundary of the London Area at Ware, Herts., was recorded as having water actually trickling through the drains used for nesting (Lloyd-Evans, *Trans. Herts. N.H.S.*). This prompts one to suggest that there may be a practical reason for the loose construction which is characteristic of Sand Martins' nests. Their nests are usually in what is a naturally damp situation and the loose construction may therefore have value as a result of the reduced capillary action and increased ventilation through the nest inherent in this kind of construction.

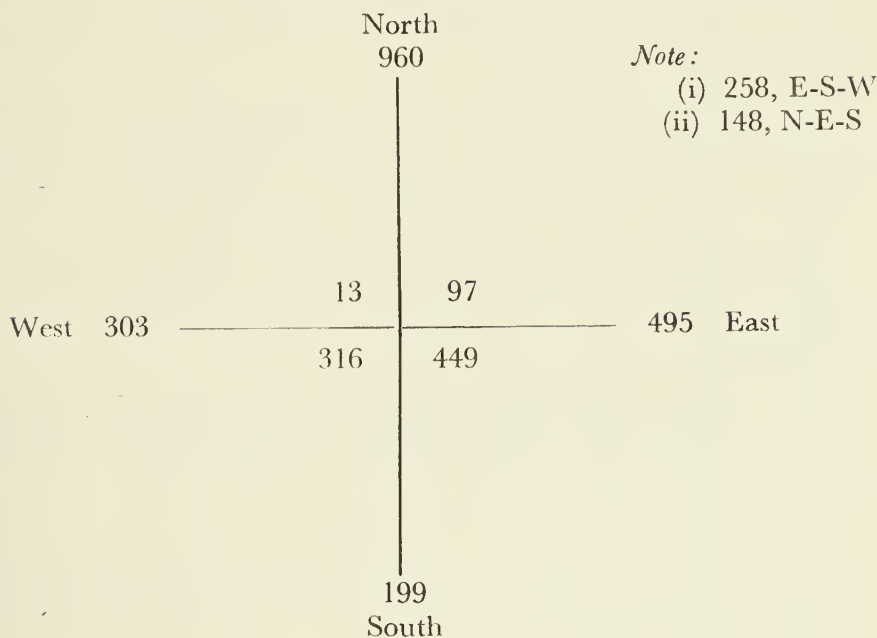
(6) Preference of Burrow Orientation

From the information provided by the 1960 census it has been possible to consider the preferences of Sand Martins as regards the direction in which their burrows face. In Fig. 7, the data for 1960 are summarized, the numbers referring to the number of burrows facing each direction, e.g. 199 faced south, 449 faced between south and east, while 495 faced east. The numbers which are given separately refer to burrows in colonies which had rather wide variation in direction and special care in employing these figures is necessary.

Consider first the possibility of an easterly or westerly bias. The diagram indicates that 1189 burrows faced east as against only 632 facing westerly directions; we have taken into account the data of note (i) in Fig. 7. Thus it can be said that there was an almost two to one preference for an easterly outlook.

Next consider the north-south case. We find that 1070 burrows faced northerly directions and 1222 faced southerly ones, including those in note (ii). Thus there was only a slight possibility of a preference for a southerly direction.

FIG. 7. THE DIRECTIONS FACED BY SAND MARTIN BURROWS.

**(7) Notes on Colonies examined in detail**

At five colonies in the Lea Valley more detailed information was available for 1960 as a result of the close inspection of burrows made by several observers (B.S.N., J.J.P., M.D.W.). At these colonies each burrow was inspected for signs of nesting and the dimensions of the burrows were measured using steel tapes. Of the five colonies, one was not actually used in 1960 and another was of only five burrows, and neither of these colonies, therefore, is detailed in the tables.

TABLE 11
DETAILS OF THREE SAND MARTIN COLONIES IN THE LEA VALLEY

Ref.	No. of burrows	Burrows occupied	Mean length ins.	Mean diam. ins.	Date
E.10	14	9	21.6	3.2*	7.7.61
E.8	112	19-25	33.5	4.5	3.7.61
E.9	165	25-50	14 × 1ft-2ft 11 × >2ft	—	14.6.61

* excluding one of 12.5 ins.

Any burrow with nest material was termed occupied.

TABLE 12
THE DISTRIBUTION OF BURROW LENGTH AT TWO LEA VALLEY SAND MARTIN COLONIES

Ref.	0-1ft	1ft-2ft	2ft-3ft	3ft-4ft	4ft-5ft	Total
E.8	43.75%	17.86%	29.47%	8.04%	0.88%	112
E.9	49.7%	34.6%	15.7%	—	—	165

It will be seen from Table 11 that colony E8 had much longer burrows on average than the other two and the mean length of 33.5 ins is considerably

in excess of the value quoted by Hickling (1959) and Stoner (1936) which were 25.8 ins for 29 holes and 28 ins for 89 holes respectively, the latter being for Sand Martins in the U.S.A.

The actual distribution of burrow length is given in Table 12 for two of the colonies and it can be seen that a high proportion of the holes were very short. In this connection it is worth noting that a nest at Fishers Green G.P., Essex, in 1955, was situated in a mere depression in the cliff face (A. P. Shorter unpub.); the possibility exists that this unusual situation was the result of a cliff fall, as at colony E9 a number of burrows were destroyed by undermining of the cliff, which resulted in a landslide, and two others were blocked as a result of minor falls.

At colony E9, two burrows were found to contain dead birds and the discovery in a third of rat faeces suggests a possible cause of death; both burrows were of somewhat larger diameter than average and the cliff was rather low, about six feet.

It was noticed that eggs and nests were frequently covered with sand, a possibility which makes it easy to overlook a nest on casual inspection.

In the course of examining burrows a certain Staphylinid beetle was frequently observed; about 0.25 ins long it was black with an orange saddle. This beetle was noticed at the entrances of several burrows and was also found in the debris of a Sand Martin corpse found in a burrow.

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 Rothschild and Clay (1952). Fleas, Flukes and Cuckoos. Collins New Nat. London.
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Appendix

LIST OF COLONIES REPORTED IN 1960

ESSEX (18)

Grid. ref.	Locality	Burrows	Date
390078	Nazeing	28	20.7
378056	do.	165	14.6
382063	do.	112	15.6

<i>Grid. ref</i>	<i>Locality</i>	<i>Burrows</i>	<i>Date</i>
600787	S. Stifford	132	19.7
600791	do.	20	19.7
596783	do.	52	19.7
566783	W. Thurrock	91	19.7
559812	Aveley	68	19.7
552831	Upminster	8	19.7
548843	do.	32	19.7
555845	do.	6	18.6
567805	Aveley	20	5.7
511864	Romford	12	12.5
506850	Dagenham	31	12.5
510839	do.	52	12.5
522836	Rainham	25	12.5
595843	N. Ockendon	9	12.5
377970	Sewardstone	40	—
HERTS (13)			
370025	Cheshunt	10	7.7
369040	do.	30	30.6
193063	St. Albans	11	15.6
202067	do.	9	15.6
139035	Radlett	45	12.6
378077	Broxbourne	45	27.6
364081	Hoddesdon	16	7.6
300102	Lt. Berkstd.	8	20.6
300097	do.	28	20.6
265110	Hatfield	110	22.6
347134	Hertford	150	5.7
358126	Lt. Amwell	140	20.6
BUCKS (1)			
001751	Wraysbury	40	29.5
MIDDLESEX (3)			
080727	Feltham	12	14.5
040912	Harefield	20	22.5
043930	Rickmansworth	24	23.5
SURREY (6)			
255493	Reigate	180	25.5
314523	Redhill	120	3.7
359506	Redhill	220	14.5
375524	Caterham	300	22.5
203505	Reigate	30	12.7
422537	Westerham	40	5-5
KENT (7)			
592738	Swanscombe	535	19.7
627734	Northfleet	3	19.7
465548	Westerham	300	28.5
506560	Sevenoaks	258	28.5
501565	do.	100	27.5
433540	Westerham	126	28.5
—	Crayford	?	—

Note.—It should be realized that all figures for burrows are approximate and refer to the total number counted at a site and not necessarily to the number in occupation.

It is hoped that it will be possible to prepare a list of the pre-1960 records for deposition in the Society's records.

Beddington Ringing Station

DURING 1960 the ringing station enjoyed another successful season and over 2,000 birds of 48 species were ringed. 1960 also provided the first major milestone in the career of the ringing station with the ringing of the 10,000th bird. Although the number of species ringed was rather fewer than in former years, several new birds were added to the ringing list and these included Corn Bunting, Siskin and Green Sandpiper.

The number of Swifts ringed annually continues to increase steadily and the total of 689 was the highest figure yet, bringing the total number ringed to over 2,000. Particularly impressive was the exceptional number of Swifts retrapped from previous years, as many as 100 being caught in a single week-end. As usual these included a number of birds ringed by the Epsom team at West Ewell, two having been ringed as adults in 1955. A Swift provided the outstanding recovery of the year when a bird ringed at Beddington on 13th July, 1957, was shot with a catapult (!) on 6th April, 1960, at Okunga, near Kole (Kasai), Belgian Congo. Although this was the first Beddington Swift to be recovered abroad, other foreign recoveries soon followed in France and Spain.

During January a large wintering flock of Greenfinches attracted much attention and over 100 were ringed. These have provided some rather unexpected recoveries with birds at Romford in Essex and Stowmarket and Ipswich in Suffolk.

Once again there were no definite records of variant Yellow Wagtails breeding on the farm, but despite this work was continued on this problem. In particular work was concentrated on analysing colour ringing returns to show the significance of homing fidelity on this problem. This study has now been completed and the results are in the process of being written up.

As usual our thanks are due to the farm manager, Mr. E. Hodgson, B.Sc., M.Inst.S.P., and we are grateful to him for allowing us to carry on with the work of the ringing station.

B. S. MILNE.

Book Reviews

BIRD PHOTOGRAPHY AS A HOBBY. Eric Hosking and Cyril Newberry. *Stanley Paul*. London, 1961. 95 pages. Illustrated. Price 12s. 6d.

This is a book for both the beginner and the more advanced photographer and all aspects of the hobby are surprisingly well covered within this slim volume. Advice on the choice of camera, equipment and film is followed by particularly interesting chapters on hide photography with many useful hints on their construction and use. The chapter on bird photography at home offers many ideas for our own members.

Some beginners may be deterred by the technicalities of photo-electric trigger beams but may well be encouraged to experiment with some of the less complicated flash light procedures. The variety, size and cost of the equipment used by the authors may appal those about to embark on the hobby but they can take comfort from a statement early in the book that excellent results are often obtained from relatively simple and inexpensive equipment. Nine pages only are devoted to cinematography but much of the field work and other techniques for still photography is applicable and has been covered in the other chapters.

The evident enthusiasm of the authors for their subject, tempered, however, by their insistence on the careful planning of each operation, is evident throughout this book which is copiously illustrated by photographs carefully chosen to illustrate particular points in the text. It should be carried in the gadget bag of all amateur bird photographers.

W.D.P.

INSTRUCTIONS TO YOUNG ORNITHOLOGISTS. II.—BIRD BEHAVIOUR. Derek Goodwin. *Museum Press*. London, 1961. 123 pages, with line drawings and photographs. Price 12s. 6d.

In recent years the study of bird behaviour has been marked by a great increase in subtlety and complexity, and, a less welcome development, by a proliferation of jargon. As a result, many bird-watchers have, in despair, ceased to try to understand why or even watch how birds behave. This is a pity, for there are many aspects of the behaviour of even common birds which are still little understood and, as the author stresses in his introduction, a knowledge of bird behaviour can only heighten our emotional and aesthetic enjoyment of birds.

Although this book is one of a series designed for younger ornithologists (and it would be difficult to imagine a better or more lucid guide for them), it can be recommended confidently to bird-watchers of any age. In quite a short book Derek Goodwin somehow manages to provide a full survey of the whole field of bird behaviour from instinct and learning, food finding and predators to social and reproductive behaviour, preening, anting and roosting. Always clear and concise, he draws on his unique experience of

wild and captive birds and his wide knowledge of the world literature: it is an exciting and fascinating book for though now one of our leading professional ornithologists, he has never lost the amateur's enjoyment and sense of wonder. This introduction should stimulate many bird-watchers to overcome their fears of the complexity of the subject, and so bring yet greater pleasure to their days in the field. Even the most experienced will gain something from his lively and penetrating approach, a new observation, a flash of insight or the frequent reminder of our general ignorance on so many problems.

S.C.

WIDEAWAKE ISLAND. Bernard Stonehouse. *Hutchinson & Co.* London, 1960. 260 pages, 36 photographic plates, line drawings. Price 35s.

This book is a general account by the leader of the British Ornithologists' Union Centenary Expedition to Ascension Island. The scientific papers of the expedition are published elsewhere. The life of the expedition during its 18 months in the field is told in an eminently readable and often humorous manner. The various problems that arose and the manner in which they were overcome make interesting reading, and one concludes that the domestic life of the expedition was greatly improved by the remarkable productivity of an American rubbish dump! Ascension Island has never been very well known to the general public and this book gives some fascinating glimpses into the long and varied history of the island and its past inhabitants. Although the primary aim of the expedition was to study the avifauna, considerable attention was paid to the geology, flora and other faunal groups, ranging from turtles to plankton and from crabs to beetles. In the course of the ornithological studies thousands of Frigate Birds, Brown and White Boobies, Noddies, Red and Yellow-billed Tropic Birds, Fairy Terns, and Sooty or Wideawake Terns and their chicks were ringed, weighed and measured, as were their eggs. One of the primary objects of study was the Wideawake Tern and at one time some 9,000 breeding pairs were under observation. This species breeds on Ascension at a regular interval of between nine and ten months; the reason for this peculiar cycle is obscure and the book does not tell us the answer, but adds much to our knowledge of the breeding biology of the species. The illustrations are excellent and include both birds and scenery and there is a comprehensive index. As a non-scientific but nevertheless factual account of the natural history of a remote island, this book is a valuable addition to any library.

B.L.S.

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